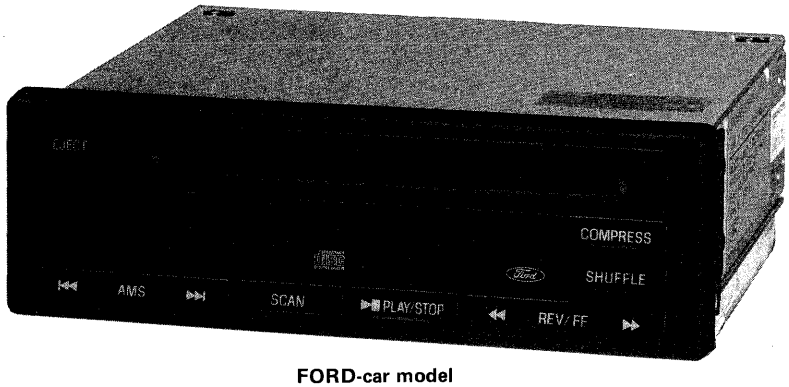
F2DF-19B160

SERVICE MANUAL

US Model



FORD-car model

Version: -AB

Model Name Using Similar Mechanism	NEW
CD Player Mechanism Type	MG-300F-A

SPECIFICATIONS

System	Compact disc digital audio system
Disc	Compact disc
Laser	Semiconductor laser (λ = 780nm)
Spindle speed	200 r.p.m. to 500 r.p.m. (CLV)
Error correction	Sony Super Strategy Cross Interleave Read Solomon Code
Number of channels	2
D-A conversion	18-bit linear
Frequency response	20 to 20,000Hz $^{+1.0}_{-1.5}$dB
Harmonic distortion	0.02% (1kHz)
Dynamic range	85dB
Signal to noise ratio	85dB
Channel separation	70dB
Wow and flutter	Below measurable limit
Outputs	Ford Signal Connector

Disc

Track pitch	1.6μm
Sampling frequency	44.1kHz
Quantization	16 bit linear quantizing/channel
Modulation system	EFM
Transfer rate	2.03Mbit/sec. (before modulation)

General

Power requirements	12V dc car battery (negative ground)
Current drain	500mA (playback) 1.5A (during disc loading or eject)
Operating temperature	-20°C to +50°C (-4°F to +120°F)
Dimensions	Approx. 188 x 59 x 160.6mm (w/h/d) (7-1/2 x 2-7/20 x 6-2/5 in.) including projecting parts and controls
Weight	Approx. 1.4kg (3lb), net

使用時は添付資料も参照のこと
Refer to the additional documents.

COMPACT DISC PLAYER

SONY®

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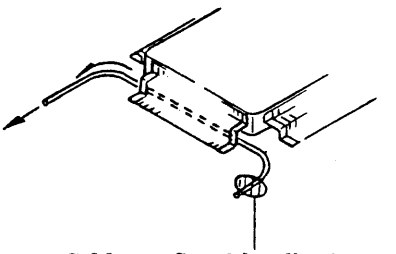
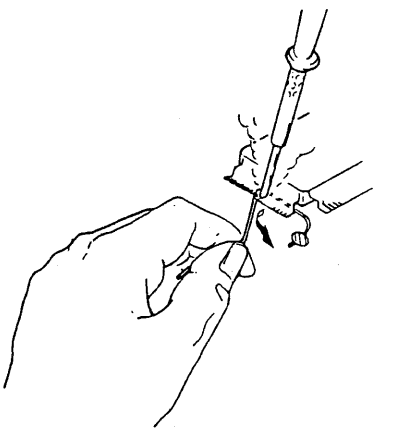
Removing the Flat Package IC

1. Prepare an enameled wire (0.3mm diameter) and apply it to the back side of the IC pins as illustrated below.



Solder or fix with adhesive tape.

2. Heat the IC pin with the soldering iron and draw the enameled wire so that the IC pin is removed from the pattern as illustrated.



SERVICING NOTE

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
SERVICING NOTES

Laser Diode Properties

- Material: GaAlAs
- Wavelength: 780 mm
- Emission Duration: continuous
- Laser Output Power: less than 44.6 μW*

  * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

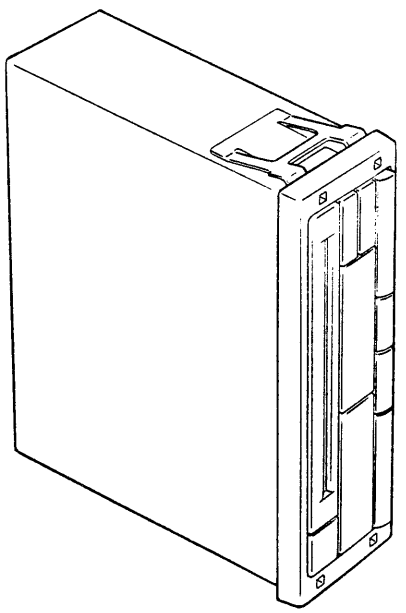
During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optical Pick-up Block (including APC board).

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

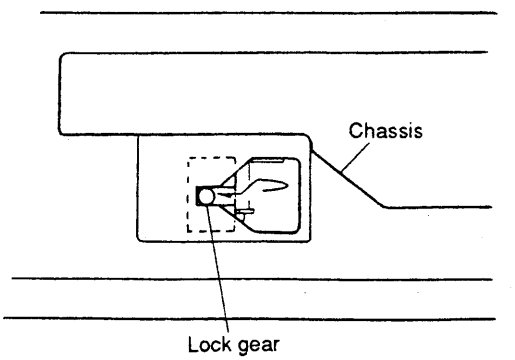
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

Cautions for Repair

- Never reverse the set when inserting or removing the disc.
  When checking the boards, put the set as illustrated below.

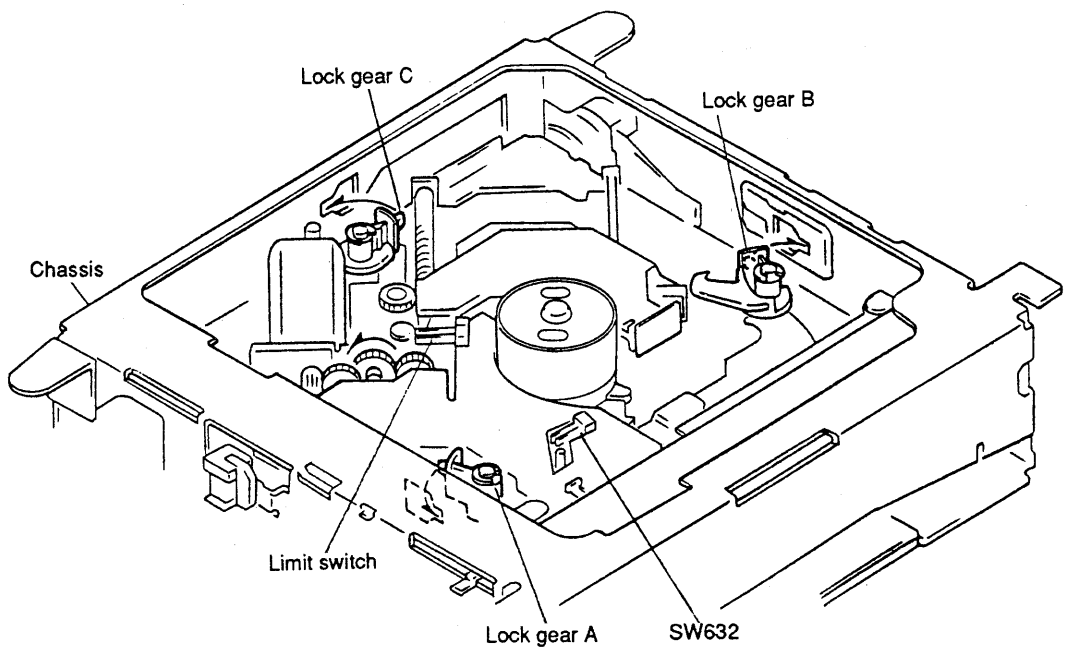


- In play mode, the disc section is connected to the chassis section only through the damper so that it is not affected by vibration.
  The lock gear is fixed in the notch of the chassis only in EJECT mode.
  If the lock gear is not firmly fixed in the notch, the disc cannot be removed or inserted. In such a case, rotate the gear near the sled motor by your fingers to fix the lock gear in the notch.



SECTION 2
CIRCUIT DESCRIPTION

When the optical section moved toward the inner circumference and the limit switch is turned on, the sled motor starts to rotate the gear in the direction of the arrow and the MD section is fixed to the chassis.
When the lock gear is fixed to the chassis, SW632 is turned on. When SW632 is turned on, the loading motor is rotated to eject the disc.



CXP-50116

Pin No.	Terminal	I/O	Description	Activation
1	COMP	O	COMPRESSION ON/OFF.	H
2	MUTE	O	MUTE control.	H
3	APC	O	Laser power ON/OFF.	L
4	–	–		
5	FGGL	O	1 kHz oscillator output. (Focus gain adjustment)	H
6	TGGL	O	1 kHz oscillator output. (Tracking gain adjustment)	H
7	FGGH	O	Oscillator switch. (Focus gain adjustment)	L
8	TGGH	O	Oscillator switch. (Tracking gain adjustment)	L
9	FG0	O	FOCUS GAIN setup.	
10	FG1	O		
11	TG0	O	TRACKING GAIN setup.	
12	TG1	O		
13	TOLF	O	Low pass filter switch. (E-F balance adjustment)	H
14	TO0	O	E-F balance setup.	
15	FO0	O	FOCUS error offset setup.	
16	FO1	O		
17	FO2	O		
18	TO1	O	E-F balance setup.	
19	TO2	O		
20	TO3	O		
21	–	–		
22	–	–		
23	–	–		
24	–	–		
25	–	–		
26	–	–		
27	–	–		
28	–	–		
29	SCOR	I	SCOR	H
30	–	–		
31	CS	I	CHIP SELECT from the system micro computer (IC301).	L
32	RST	I	RESET	L
33	–	–		
34	Vdd	–	5V	
35	CLOCK	O	DATA CLOCK for the IC503.	
36	LAT	O	DATA LATCH for the IC503.	L
37	DAT	O	DATA to the IC503.	
38	RST	O	RESET for the IC502 and IC503.	L
39	FOK	I	FOK	H
40	CS	I	(Pair with the Pin No. 31.)	L
41	MD2	O	"DIGITAL OUT" ON/OFF.	H

CXP-50116

Pin No.	Terminal	I/O	Description	Activation
42	SENS	I	SENSE	
43	DFCT	I	DFCT	H
44	SC	I/O	DATA CLOCK for the system micro computer (IC301).	
45	SO	O	DATA OUTPUT to the system micro computer (IC301).	
46	SI	I	DATA INPUT from the system micro computer (IC301).	
47	HOT	I	High temperature detection (80°C).	H
48	SQCK	O	SUB Q CLOCK	
49	SUBQ	I	SUB Q	
50	GFS	I	GFS	H
51	TESTI0	I	5 V (TEST)	L
52	TESTI1	I	5 V (TEST)	L
53	TESTI2	I	5 V (TEST)	L
54	TESTI3	I	5 V (TEST)	L
55	LOAD	O	Loading motor (LOAD).	H
56	EJECT	O	Loading motor (EJECT).	H
57	PLUNG	O	PLUNGER	H
58	POWER	O	Power supply ON/OFF.	H
59	ADJE	O	Auto adjustment error flug.	H
60	TESTE	O	(TEST)	H
61	WP	I	5 V	H
62	TEST	I	5 V (TEST)	L
63	DPLL	I	5 V (TEST)	L
64	MODE	I	5 V (TEST)	L
65	GSW	I	G SWITCH: Lock completes.	
66	FSW	I	F SWITCH: Chucking completes.	
67	ESW	I	E SWITCH: Loading completes. Chucking begins.	
68	DSW	I	D SWITCH: Eject completes (12 cm). Detects 8 cm/12 cm.	
69	CSW	I	C SWITCH: Loading begins. Eject completes (8 cm).	
70	BSW	I	B SWITCH: Detects disc existence (8 cm).	
71	Vss	–	GND	
72	ETAL	–	Oscillator (4.194304 MHz)	
73	–	–		
74	EXTAL	–	Oscillator (4.194304 MHz)	
75	VREF	–		
76	VFDP	–	GND	
77	SRQ	O	Service request.	L
78	LATCH	O	DATA LATCH for the IC504.	L
79	SHIFT	O	DATA SHIFT CLOCK for the IC504.	
80	ATT	O	DATA to the IC504. (Attenuation data)	

μPD75512GF

Pin No.	Terminal	I/O	Description	Activation
1	LAMP IN	I	Dimming voltage.	ANALOG
2	AV REF	I	Voltage reference (5V).	
3	VDD	–	5V	
4	VDD	–	5V	
5	–	–		
6	–	–		
7	–	–		
8	–	–		
9	–	–		
10	DATA	O	DATA to the IC401. (Display and dimming data)	
11	CLOCK	O	DATA CLOCK for the IC401.	
12	LATCH	O	DATA LATCH for the IC401.	H
13	–	–		
14	KS2	O	KEY SCAN output.	H
15	KS1	O		
16	KS0	O		
17	–	–		
18	–	–		
19	–	–		
20	–	–		
21	KI3	I	KEY SCAN input.	H
22	KI2	I		
23	KI1	I		
24	KI0	I		
25	–	–		
26	–	–		
27	–	–		
28	–	–		
29	–	–		
30	–	–		
31	–	–		
32	–	–		
33	GND	–	GND	
34	–	–		
35	CD/EXT	O	CD/EXTERNAL audio select.	H
36	LOG SENS	O	LOGIC SENSE	H
37	MUTE	O	MUTE control.	H
38	–	–		
39	–	–		
40	SRQ	I	Service request.	L
41	C. SW	I	C SWITCH	L

μPD75512GF

Pin No.	Terminal	I/O	Description	Activation
42	CS	O	CHIP SELECT for the mechanism micro computer (IC601).	L
43	MD RST	O	RESET for the mechanism micro computer (IC601).	L
44	–	–		
45	POWER	O	POWER SUPPLY ON/OFF.	L
46	–	–		
47	–	–		
48	–	–		
49	TEST IN	I	(TEST)	
50	SI	I	DATA INPUT from the mechanism micro computer (IC601).	
51	SO	O	DATA OUTPUT to the mechanism micro computer (IC601).	
52	SCK	I/O	DATA CLOCK for the mechanism micro computer (IC601).	
53	RADIO ON	I	RADIO ON	H
54	GND	–	GND	
55	XT1	–	0V	
56	XT2	–		
57	IC	–	0V	
58	X1	–	Oscillator (4.194304 MHz)	
59	X2	–	Oscillator (4.194304 MHz)	
60	RESET	I	System RESET	L
61	–	–		
62	–	–		
63	–	–		
64	–	I		
65	–	–		
66	–	–		
67	–	–		
68	–	–		
69	–	–		
70	–	–		
71	–	–		
72	–	–		
73	AVSS	–	GND	
74	–	–		
75	–	–		
76	–	–		
77	–	–		
78	–	–		
79	–	–		
80	–	–		

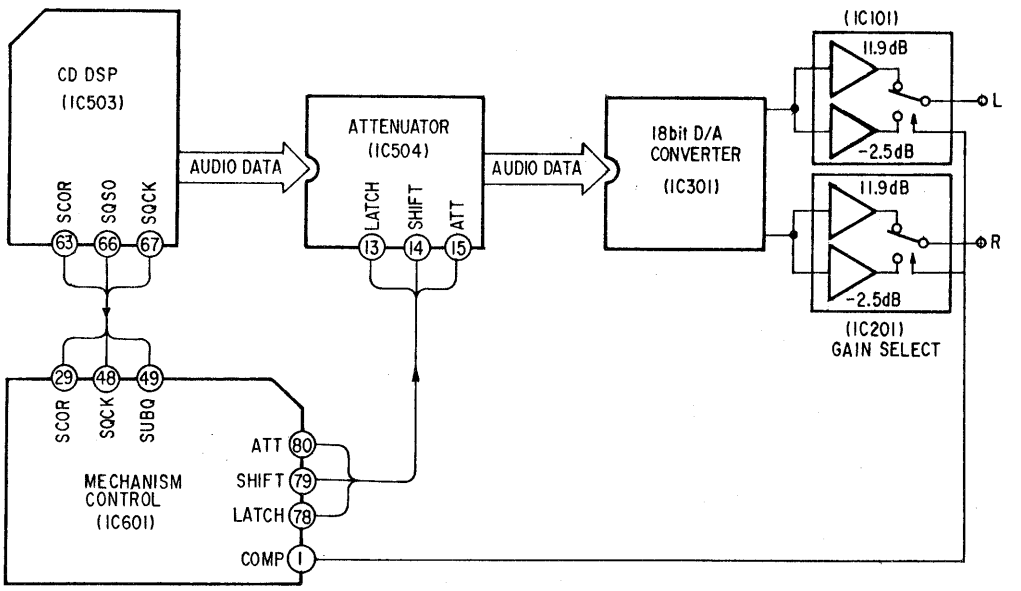
Compressor

The audio compressor is realized by digital processing in a microcomputer.

Operations

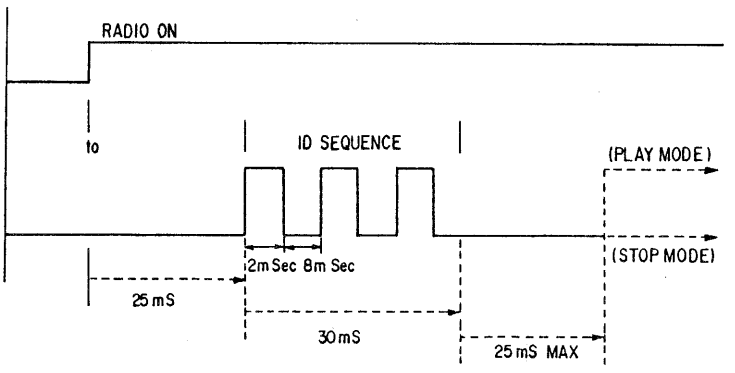
1. The level data is output from the SQSO terminal of IC503 based on the SCOR timing.
2. The compression rate is calculated by IC601 and is output as the control data from the ATT terminal.
3. The sound level is adjusted by IC504 based on the control data.

The IC101 and IC201 make the necessary gain switch-overs to adjust the output level during on and off of the compressor.



Identification Sequence

The identification sequence is output from the "CD Logic Sense" terminal of CNJ5 when the "Radio On" terminal of CNJ106 is adjusted to "H".



FUNCTIONS OF CONTROLS

Eject Button
Pressing this button will eject the disc.

Scan Button
During either play mode or stop mode, CD player will scan-up to next selection and play for 8 seconds then advance to next selection unless button is pushed again. When Scan is active, both the track # and elapsed time will be displayed. The track # will blink when the Scan Mode is active.

Search Key
During either play mode or stop mode, pressing either button will search for a particular point on the disc.
◀◀ : To go backwards at high speed
▶▶ : To skip ahead at high speed

SEEK (Automatic Music Search) Key
During either play mode or stop mode, pressing either side of this button will start playback at the beginning of a particular selection.
|◀◀ : To go back to the beginning of a current selection
▶▶|: To skip ahead to the beginning of a later selection

▶PLAY/■ STOP Key and Indicators
When a disc is loaded, the unit automatically enters play mode and the "▶" indicator illuminates.
When the disc is playing and the Play/Stop is pressed, play mode is suspended, the "■" indicator illuminates, the disc stops rotating and enters the stop mode.
To resume CD play, press the key once again.

Compression Switch
During the compression mode, the indicator "COMP" in the display will be ON.

Shuffle
Activating this feature will cause the selections on the disc to be played in random order. When shuffle mode is active, the word "SHUF" will be illuminated in the display.

Stop Mode
Each of the following operations activates the stop mode.
1. When the Play/Stop button is pressed while in Play Mode.
2. Removing a disc, using Eject.

Play Mode
Each of the following operations will activate the Play Mode.
1. Inserting a disc.
2. Pressing the Play/Stop button, when the unit is in the Stop Mode.

Eject Mode
Each of the following operations will activate the Eject Mode.
1. Pressing the Eject button
2. Inserting the disc incorrectly
3. Dislodging of focus, due to disc scratches or external vibration.

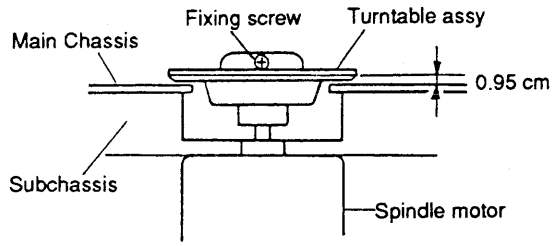
Disc Loading
The disc will be loaded into the mechanism when it is inserted into the slot and gently pushed.
The opening to the loading slot is blocked and will not open after loading is completed. This is the Double Loading prevention function.

High Temperature Operation
The CD player shall contain an automatically resettable heat detection circuit (80° C) to monitor the internal temperature of the player. When the temperature reaches extreme limits, power to the laser diode will be cut to prevent damage. Upon actuation of the circuit, the disc player will enter Stop Mode and the CD Logic Sense will go low to turn control over to the radio. The word "HOT" shall be shown on the disc player display. When the internal temperature of the CD player returns within maximum operating temperature, the elapsed time and track number will replace the word "HOT" and the CD player will remain in Stop Mode. The CD player shall be fully functional when the internal temperature is 80° C or less.

SECTION 3
MECHANICAL ADJUSTMENTS

Turntable Height Adjustment

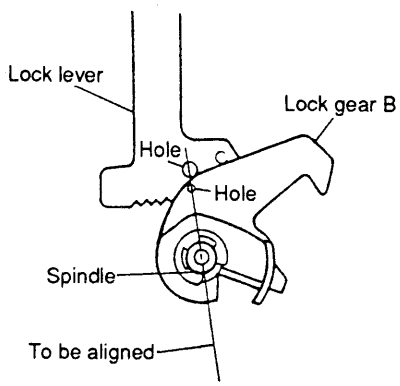
Loosen the fixing screws and adjust the height to the specification illustrated.



Lock Gears (A and B) Installing Adjustment

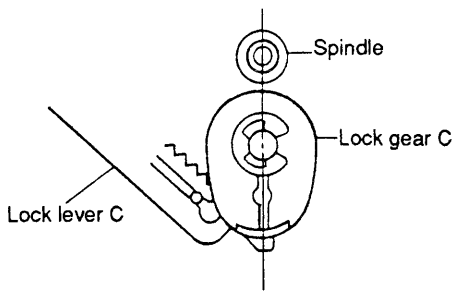
Since installing lock gears A and B is the same, only lock gear B is described below.

1. Rotate the gear near the motor with your fingers to move the optical section toward the external circumference.
2. Continue to rotate the gear until the lock gear is disconnected from the notch of the chassis and stops.
3. Fix the lock gear so that the holes of the lock lever and the lock gear and the spindle are roughly aligned.



Lock Gear C installing Position Adjustment

1. Rotate the gear near the motor and move the optical section toward the external circumference.
2. Continue to rotate the gear until the lock gear is disconnected from the notch of the chassis and stops.
3. Fix lock gear C so that the spindle, the lock gear C fixing axis and the center of the lock gear C projection are roughly aligned.



SECTION 4
ELECTRICAL ADJUSTMENTS

Adjustments

The adjustments of the EF balance, focus error bias, tracking gain and focus gain are performed automatically by the microcomputer (IC601). These adjustments are performed every time under the following conditions.

1. Just before a loaded disk begins to play.
2. Just before the play after "RADIO ON" has been adjusted from Low to High (Power ON) begins.
3. The adjustment is made just before a disk which has been stopped once, is played again. And if there were error outbreaks in step 2, the items which were faulty are adjusted.

The Pin 59 "ADJE" of IC601 becomes "H" (5 V) when proper automatic adjustments could not be performed, to indicate an error. However, the play is performed normally.

Causes of Automatic Adjustment Errors

1. E-F Balance
   a. Defective optical system (KSS-168A).
   b. Defective R500, R550, R551, R552, R505, R598, Q510, Q511, Q516 and C512.
2. Focus Error Bias
   a. Defective R554, R555, R556, R507, R553, Q512 and Q515.
3. Tracking Gain
   a. Defective optical system (KSS-168A).
   b. Dirty disk.
   c. Defective R563, R564, Q514, Q517, Q518, R404 and R406.
4. Focus Gain
   a. Defective optical system (KSS-168A).
   b. Dirty disk.
   c. Defective R559, R560, Q513, Q517, Q518, R403 and R405.

SECTION 5
DIAGRAMS

5-1. PRINTED WIRING BOARDS (MD Section)

- **Semiconductor Location (MD Section)**

Ref.No.	Location	Ref.No.	Location
D301	G-21	IC503	D-23
D302	G-20	IC504	D-18
D404	B-18	IC601	C-20
D405	B-19		
D406	A-20	Q301	E-19
D409	A-19	Q302	H-19
D410	A-19	Q303	G-20
D501	F-21	Q304	G-20
D502	E-19	Q305	H-20
D503	E-18	Q351	A-18
D504	E-17	Q352	H-20
D505	B-17	Q353	H-20
D506	E-18	Q354	B-18
D601	C-19	Q409	B-19
D631	E-15	Q502	H-21
D632	H-15	Q503	H-23
D633	G-14	Q504	H-24
		Q510	F-23
IC101	G-19	Q511	F-23
IC201	G-18	Q512	E-21
IC301	E-18	Q513	E-22
IC302	G-20	Q514	E-22
IC303	D-18	Q515	D-22
IC401	B-20	Q516	E-22
IC403	B-22	Q517	E-22
IC404	B-24	Q518	D-22
IC405	B-19	Q621	C-3
IC501	G-22	Q622	F-1
IC502	E-24	Q623	F-3

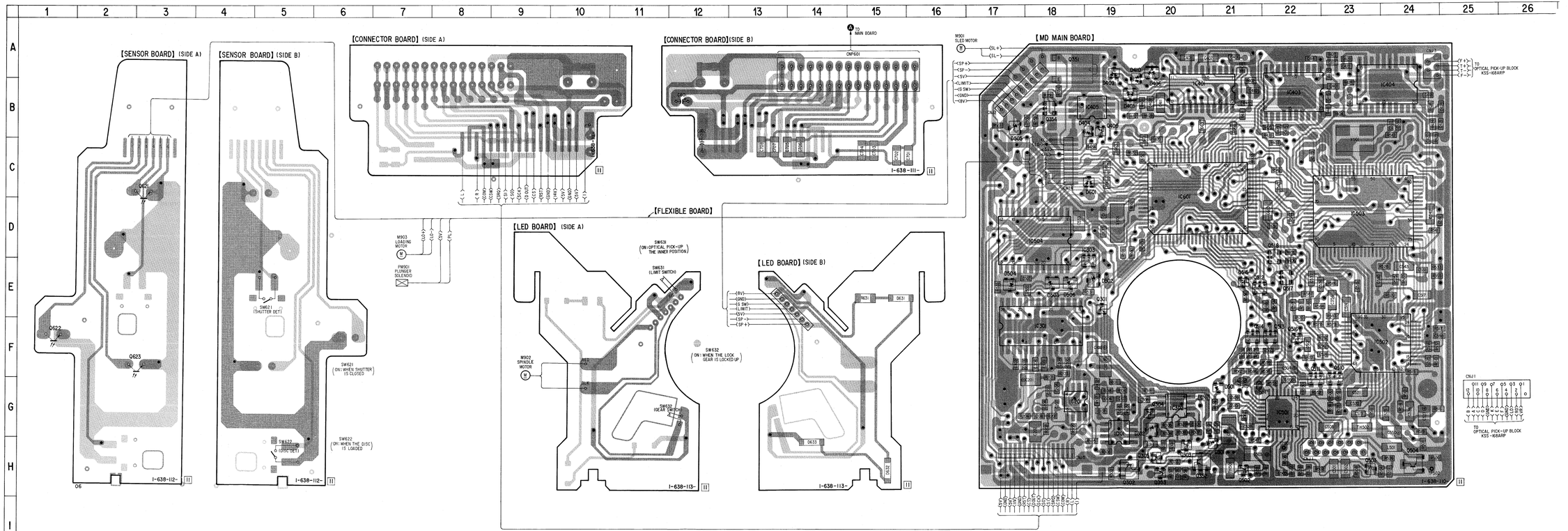
Note on printed wiring boards (MD Section)

- ·——·: parts extracted from the component side.
- ·——·: parts extracted from the conductor side.
- · ● · : Through hole.
- ·▒▒·: Pattern on the side which is seen.
- ·▒▒·: Pattern of the rear side.

Note on schematic diagram (MD Section):

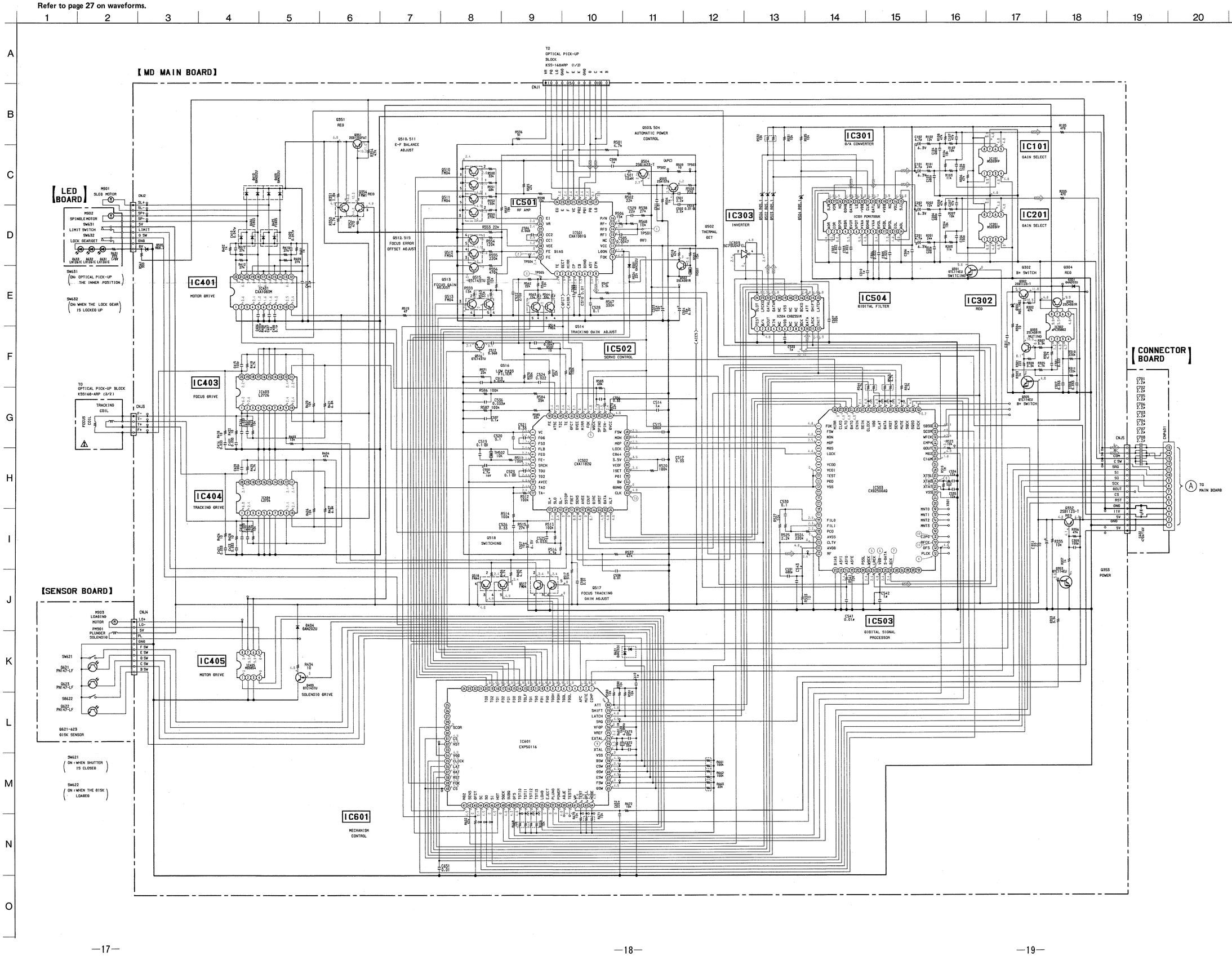
- All capacitors are in μF unless otherwise noted. pF: μ μF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ——— : B +line
- Voltages and waveforms are dc with respect to ground under no signal conditions.
- Voltages are taken with a VOM. (Input impedance 10M Ω) Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.



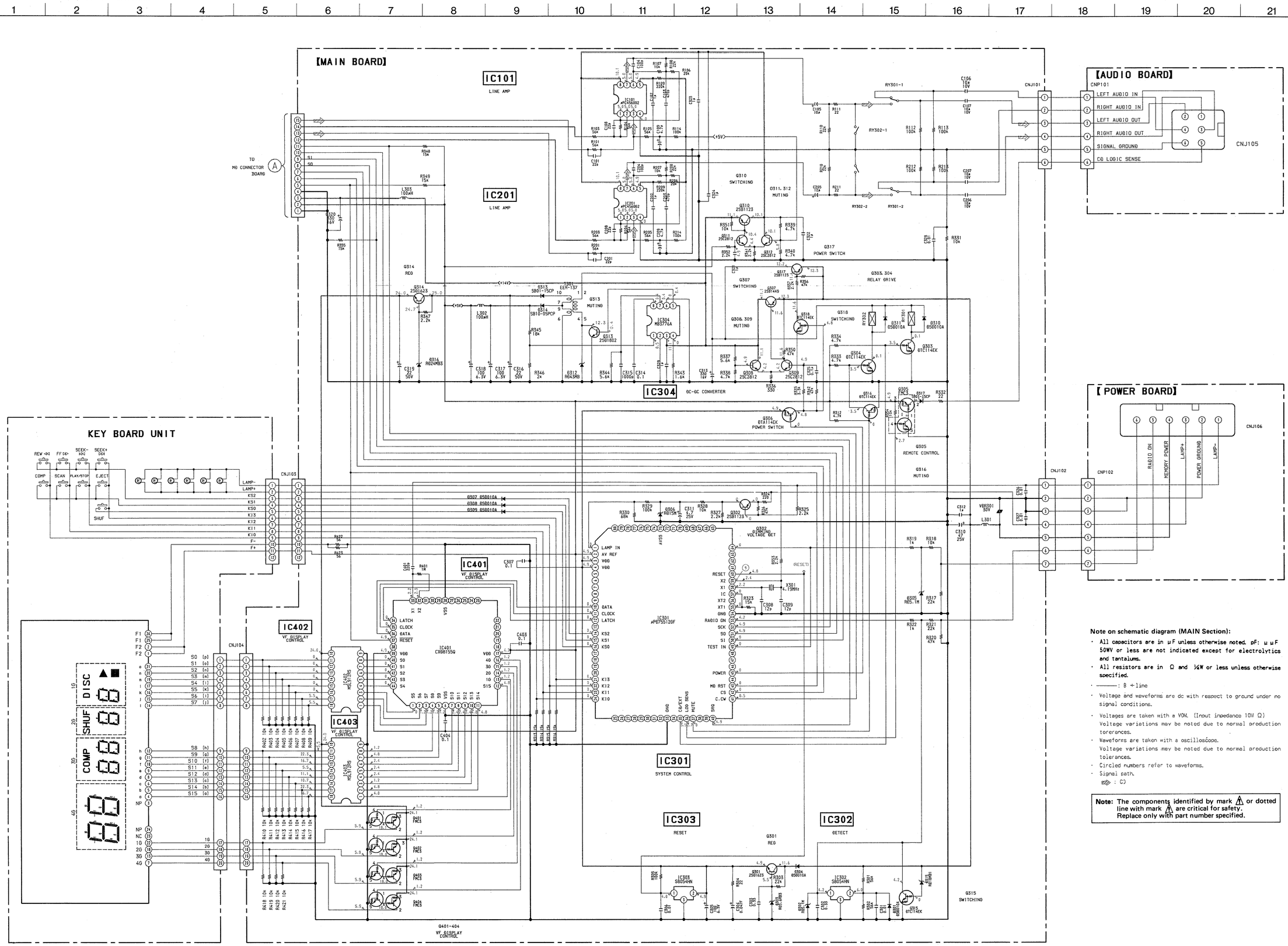
5-2. SCHEMATIC DIAGRAM (MD Section)

Refer to page 27 on waveforms.



5-3. SCHEMATIC DIAGRAM (MAIN Section)

● Refer to page 27 for waveforms.



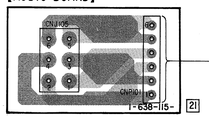
Note on schematic diagram (MAIN Section):

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ———: B +line
- Voltage and waveforms are dc with respect to ground under no signal conditions.
- Voltages are taken with a VOM. (Input impedance 10M Ω)
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ▨ : CJ

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

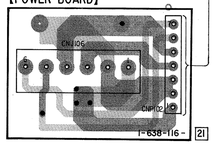
5-4. PRINTED WIRING BOARDS (MAIN Section)

【AUDIO BOARD】



1 : LEFT AUDIO IN
2 : RIGHT AUDIO IN
3 : LEFT AUDIO OUT
4 : RIGHT AUDIO OUT
5 : SIGNAL GND
6 : CD LOGIC SENSE

【POWER BOARD】

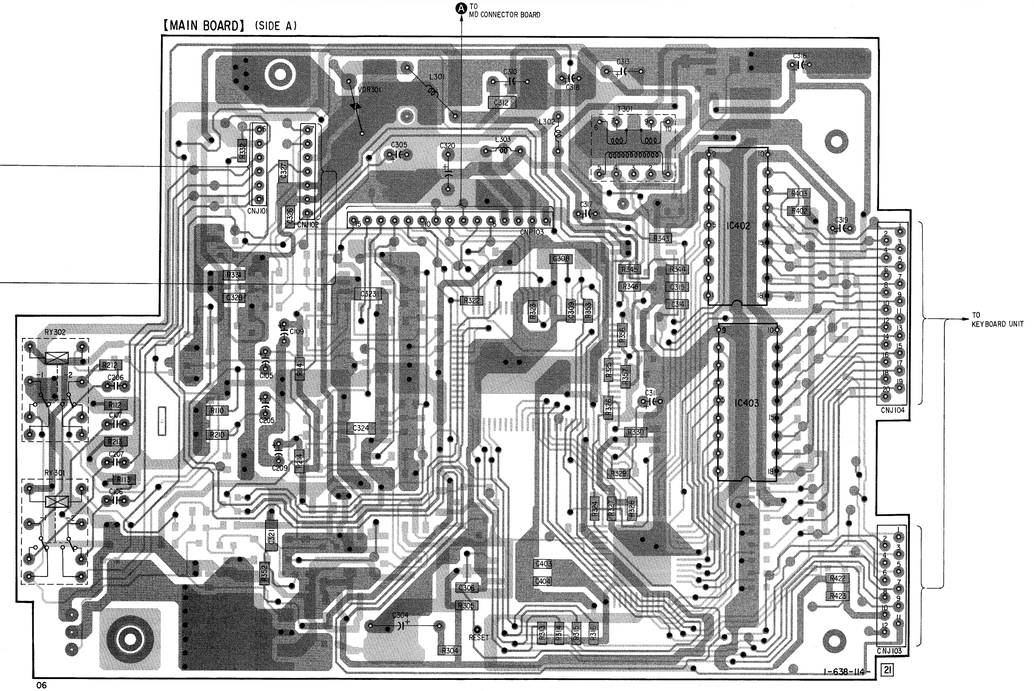


1 : LAMP -
2 : POWER GND
3 : LAMP +
4 : MEMORY POWER
5 : RADIO ON
6 : —

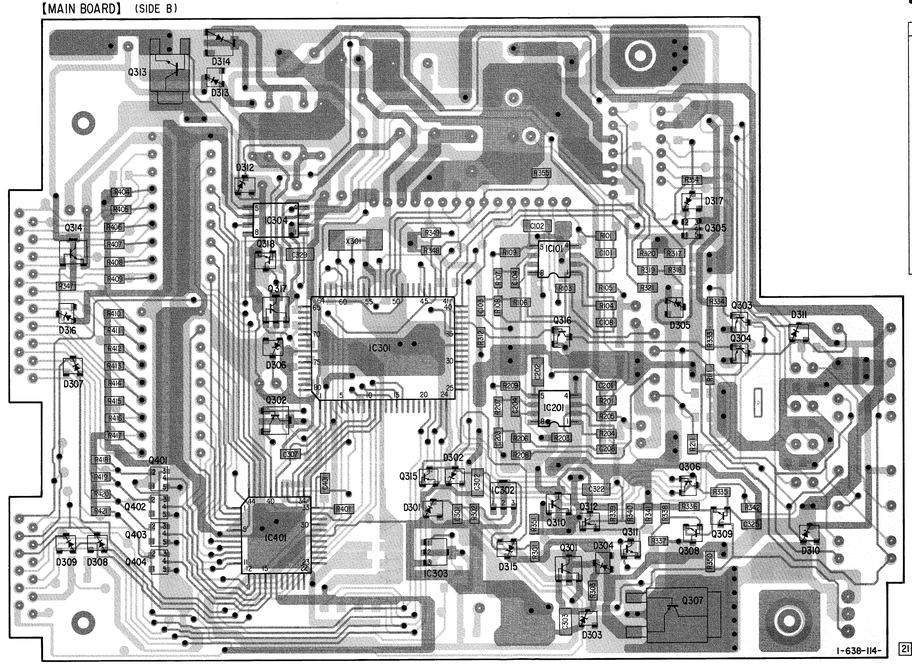
Note on printed wiring boards (MAIN Section):

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.
- ▒▒ : Pattern of the rear side.

【MAIN BOARD】 (SIDE A)



【MAIN BOARD】 (SIDE B)

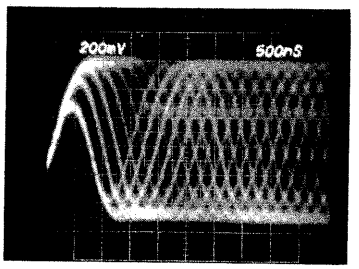


● **Semiconductor Location (MAIN Section)**

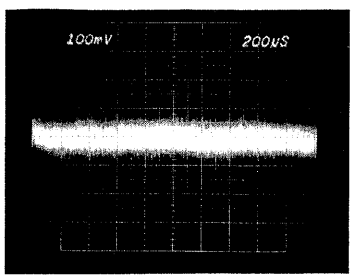
Ref. No.	Location	Ref. No.	Location
D301	E-17	IC402	B-10
D302	E-17	IC403	D-10
D303	F-19		
D304	F-19	Q301	F-18
D305	D-20	Q302	E-16
D306	D-16	Q303	D-20
D307	D-14	Q304	D-20
D308	F-14	Q305	C-20
D309	F-14	Q306	E-20
D310	F-21	Q307	D-19
D311	D-21	Q308	F-20
D312	B-15	Q309	F-20
D313	A-15	Q310	E-18
D314	A-15	Q311	F-19
D315	F-18	Q312	F-19
D316	C-14	Q313	A-15
D317	B-20	Q314	C-14
		Q315	E-17
IC101	C-18	Q316	D-18
IC201	E-18	Q317	C-16
IC301	D-17	Q318	C-15
IC302	E-18	Q401	E-15
IC303	F-17	Q402	E-15
IC304	C-16	Q403	F-15
IC401	F-16	Q404	F-15

5-5. WAVEFORMS

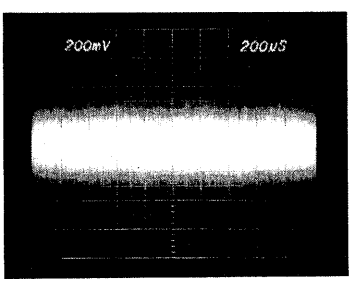
①



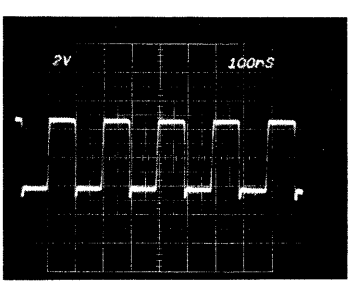
②



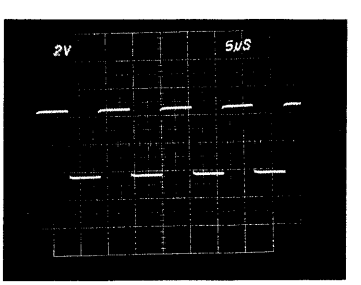
③



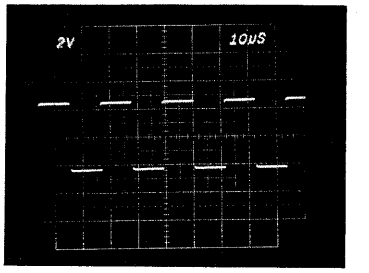
④



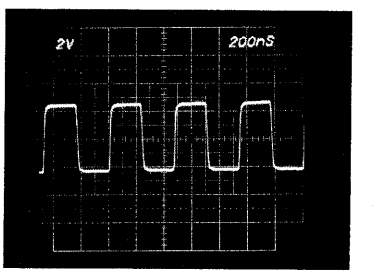
⑤



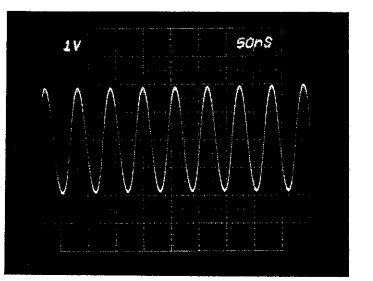
⑥



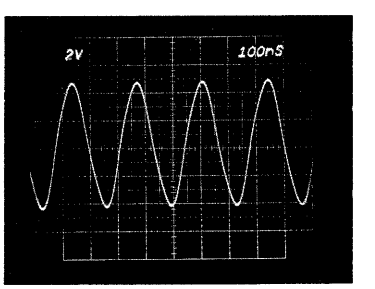
⑦



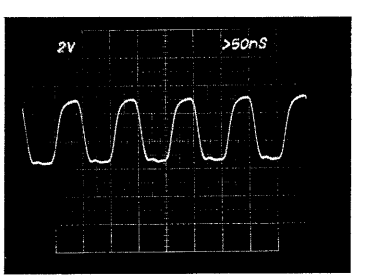
⑧



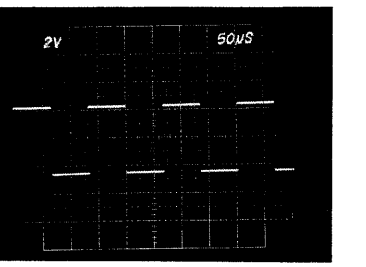
⑨



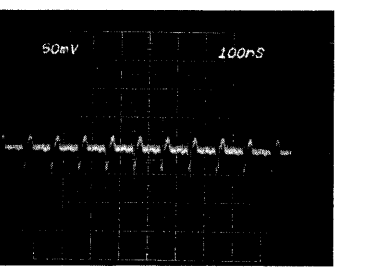
⑩



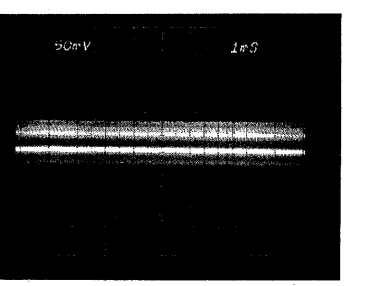
⑪



⑫

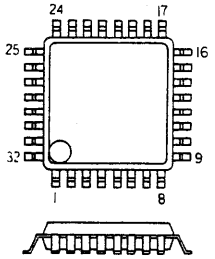


⑬

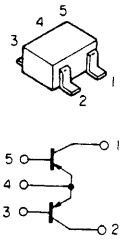


5-6. SEMICONDUCTOR LEAD LAYOUTS

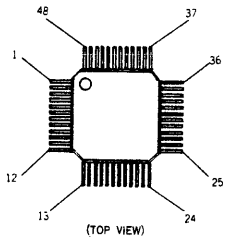
CXA1081Q



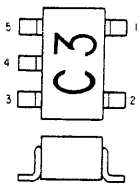
FMA4



CXA1182Q-Z

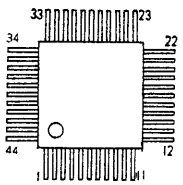


FMC3

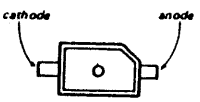


PN147-LF

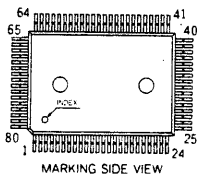
CXD8155Q



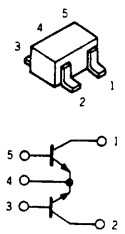
LN1261C



CXD2500AQ
CXP50116-235Q
μPD75512GF-095



FMG4
FMW1



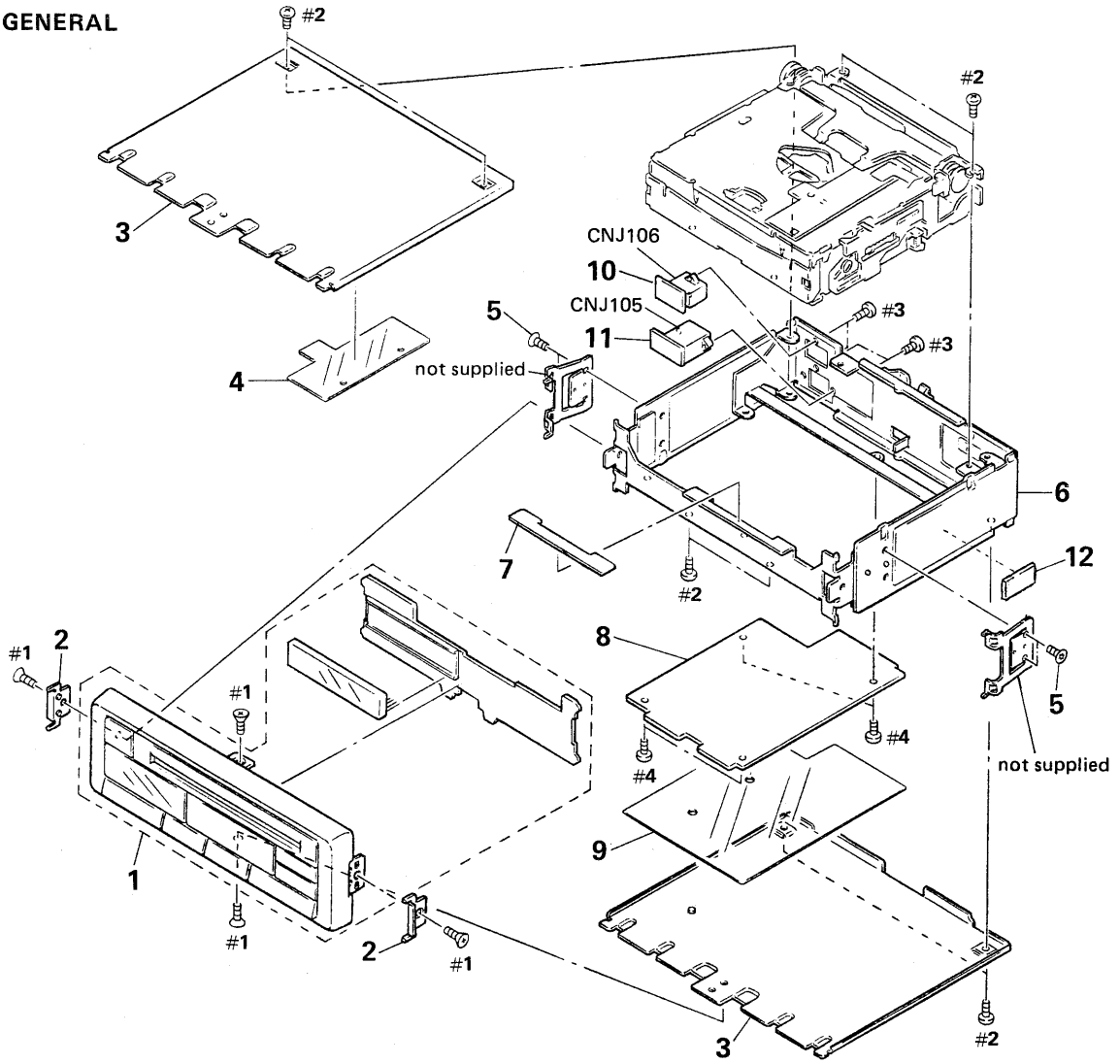
SECTION 6
EXPLODED VIEWS

NOTE:

- –XX, –X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts color ↑ Cabinet's color
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

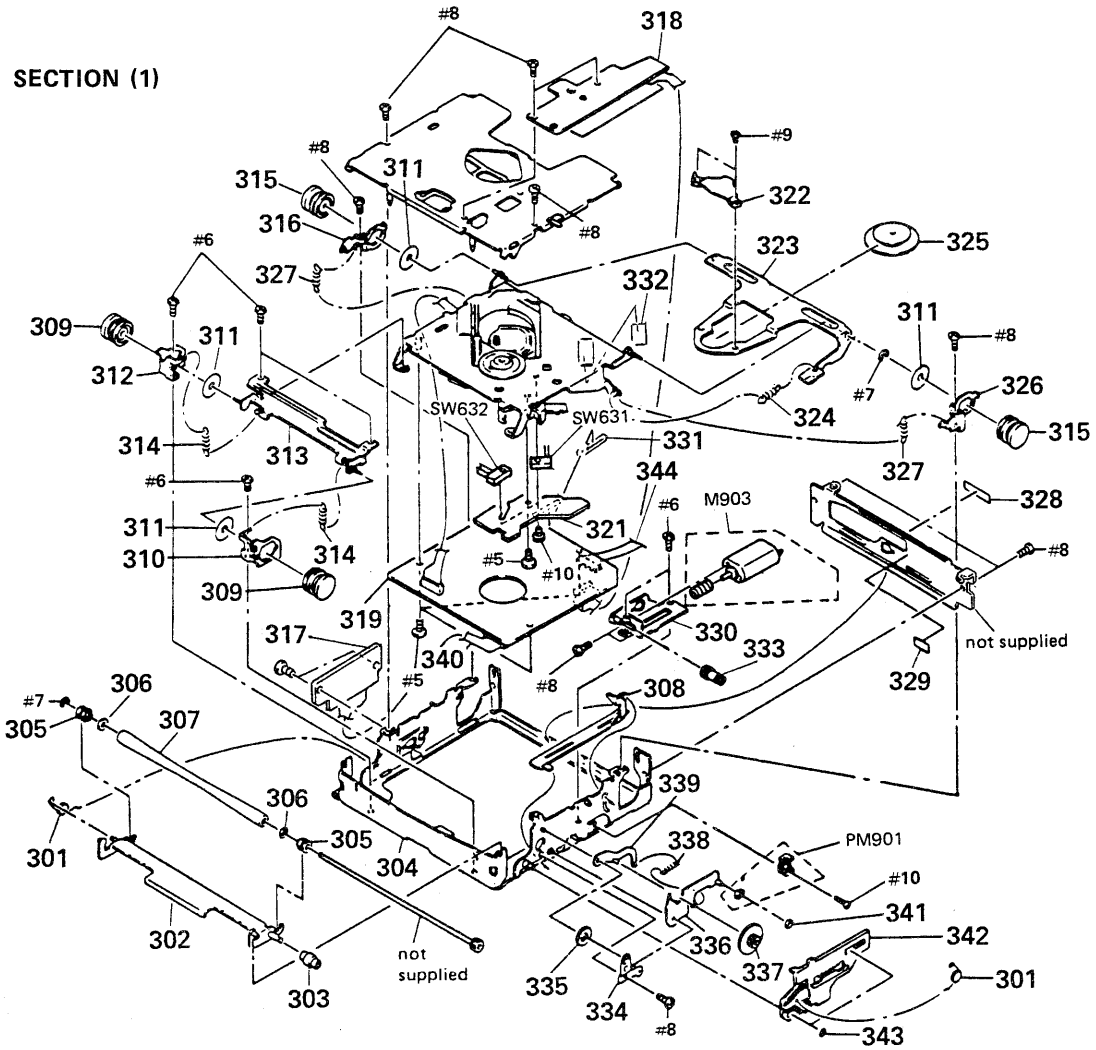
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. GENERAL



Ref. No.	Part No.	Description	Remark
1	* 1-466-492-11	KEYBOARD UNIT	
2	* 3-362-079-01	REINFORCEMENT (PANEL)	
3	* 3-362-072-01	COVER	
4	* 3-363-074-01	SHEET (B)	
5	3-342-659-01	SCREW (SPRING CLIP)	
6	* X-3362-150-1	CHASSIS ASSY	
7	* 3-363-076-01	SHEET (A)	
8	* A-3261-125-A	MOUNTED PCB (B), MAIN	
9	* 3-363-075-01	SHEET (C)	
10	* 1-638-116-11	POWER BOARD	
11	* 1-638-115-11	AUDIO BOARD	
12	* 3-363-077-01	LABEL, MODEL NUMBER	
CNJ105	1-565-094-11	SOCKET, CONNECTOR 6P	
CNJ106	1-569-522-11	PIN, CONNECTOR	

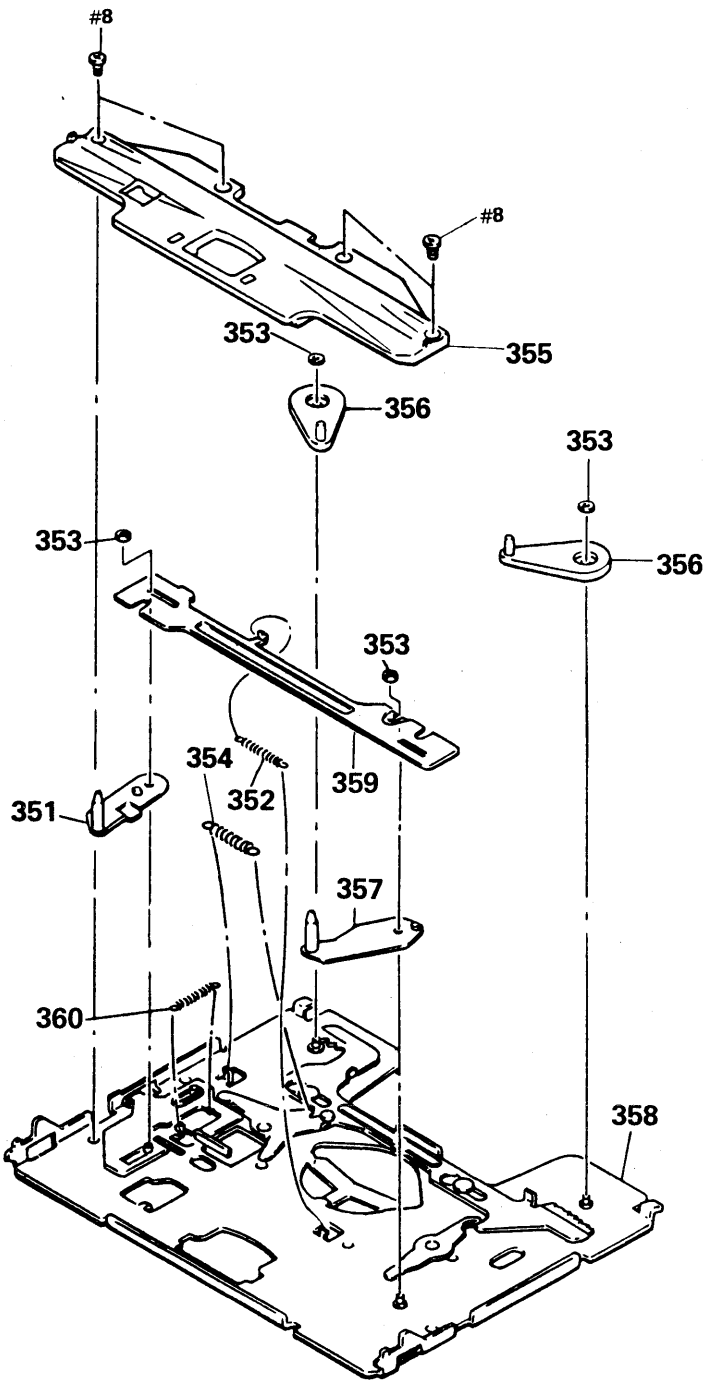
6-2. MD SECTION (1)



Ref. No.	Part No.	Description	Remark
301	3-351-437-01	SPRING (ROLLER)	
302	* X-3351-422-1	BRACKET (ROLLER) ASSY	
303	3-351-495-01	SLEEVE (2)	
304	* X-3351-428-2	CHASSIS (MAIN F2) ASSY	
305	3-351-416-01	BEARING (ROLLER SHAFT)	
306	3-701-438-11	WASHER, 2.5	
307	3-323-231-11	ROLLER (LOWER)	
308	* X-3351-418-1	LEVER (CH RELEASE) ASSY	
309	3-364-310-01	DAMPER (F)	
310	* 3-351-492-01	BRACKET (DUMPER A)	
311	3-323-263-01	WASHER, TEFLON	
312	* 3-351-493-01	BRACKET (DUMPER B)	
313	* X-3351-423-1	BRACKET (F) ASSY	
314	3-351-444-01	SPRING (FLOATING A, B), TENSION	
315	3-330-929-11	DAMPER (S), HYPER	
316	* 3-351-411-01	BRACKET (DAMPER D)	
317	* 1-638-111-11	CONNECTOR BOARD	
318	* 1-638-112-11	SENSOR BOARD	
319	* A-3273-323-A	MD MAIN BOARD, COMPLETE	
321	* 1-638-113-11	LED BOARD	
322	3-342-625-01	RETAINER (S2), THRUST	
323	* 3-351-453-01	ARM, CHUCKING	
324	3-351-443-01	SPRING (CHUCKING), TENSION	
325	3-348-558-01	PLATE (F), CHUCK	

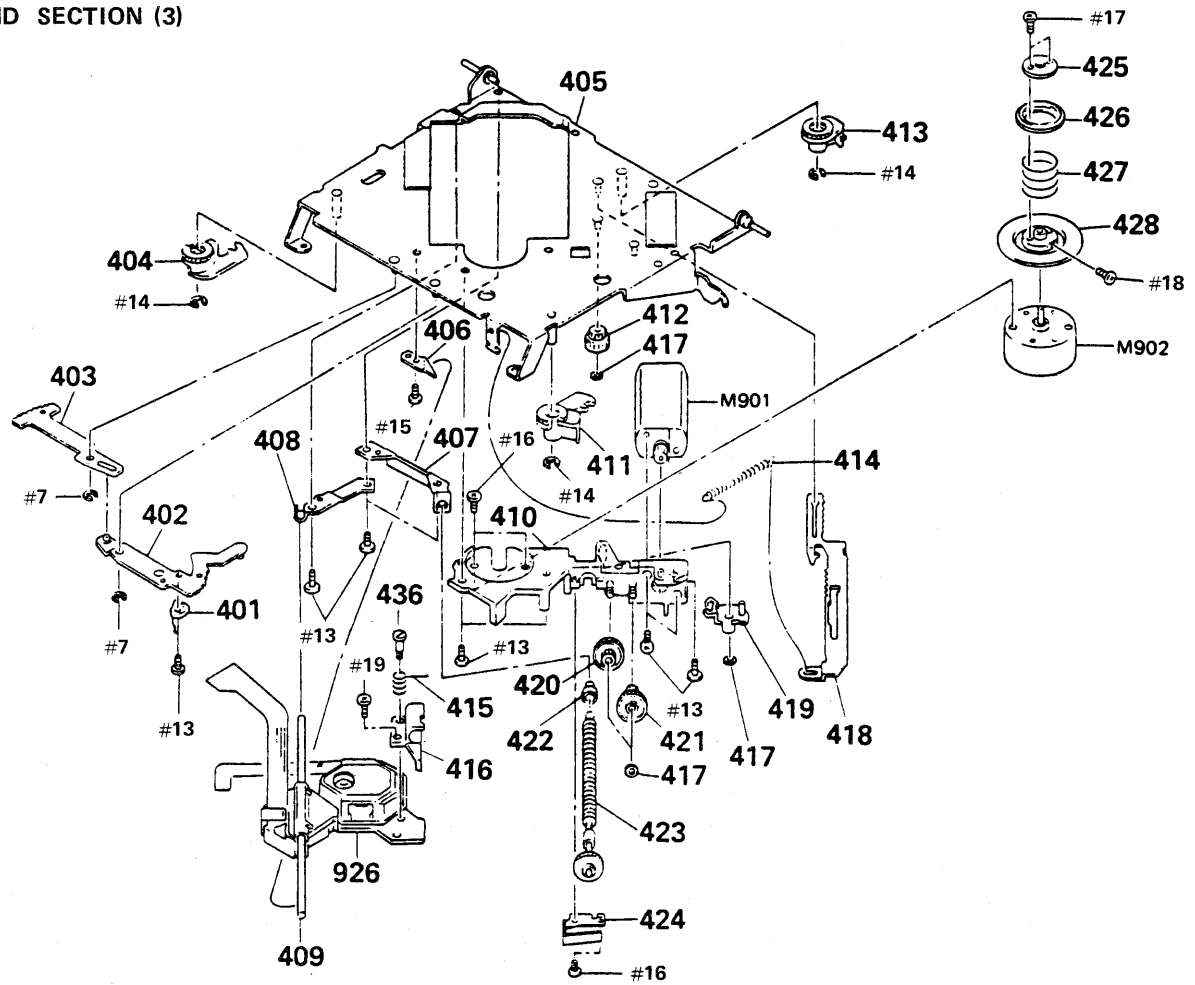
Ref. No.	Part No.	Description	Remark
326	* 3-351-494-01	BRACKET (DUMPER C)	
327	3-351-445-01	SPRING (FLOATING C, D), TENSION	
328	* 3-351-470-01	SHEET, ADHESIVE	
329	* 3-351-464-01	SHEET (SM), INSULATING	
330	* X-3351-419-1	BRACKET (M) ASSY	
331	9-911-844-XX	SHEET	
332	* 3-351-466-01	SHEET (TH1), INSULATING	
333	3-351-498-01	GEAR (B, WORM WHEEL)	
334	* 3-351-482-01	RETAINER (SIDE GEAR 2)	
335	3-351-414-01	GEAR (C)	
336	* X-3351-421-1	LEVER (SW) ASSY	
337	3-351-438-01	GEAR, CAM	
338	3-351-463-01	SPRING (SW LEVER 2), TENSION	
339	* X-3351-420-1	LEVER (GEAR C) ASSY	
340	1-629-582-11	TRANSLATION FLEXIBLE BOARD	
341	3-315-384-11	WASHER, STOPPER	
342	3-351-456-01	LEVER (L, E)	
343	3-578-224-00	WASHER	
344	1-629-581-11	SENSOR FILEXIBLE BOARD	
M903	A-3249-535-A	GEAR (A) ASSY (LOADING)	
PM901	1-454-461-11	SOLENOID, PLUNGER	
SW631	1-554-938-11	SWITCH, LEAF (LIMIT SWITCH)	
SW632	1-554-938-11	SWITCH, LEAF (GEAR SWITCH)	

6-3. MD SECTION (2)



Ref. No.	Part No.	Description	Remark
351	* X-3351-426-1	LEVER (D DETECTION R2) ASSY	
352	3-351-447-02	SPRING (JOINT F), TENSION	
353	3-578-224-00	WASHER	
354	3-351-446-01	SPRING (JOINT R), TENSION	
355	3-351-496-01	GUIDE (DISK 2)	
356	3-351-432-01	GEAR (DS)	
357	* X-3351-425-1	LEVER (D DETECTION L2) ASSY	
358	* X-3351-424-1	CHASSIS (T2) ASSY	
359	* 3-351-489-02	JOINT (F2)	
360	3-351-448-01	SPRING (LOCK LEVER), TENSION	

6-4. MD SECTION (3)



Ref. No.	Part No.	Description	Remark
401	＊2-643-407-01	PLATE, SWITCH	
402	＊X-2641-534-1	LEVER (A) ASSY, LOCK	
403	＊2-641-582-01	LEVER (B), LOCK	
404	2-643-414-02	GEAR (B), LOCK	
405	＊X-2641-536-2	CHASSIS ASSY, MAIN	
406	2-643-402-01	RETAINER (B), SHAFT	
407	2-643-403-01	RETAINER, FEED SCREW	
408	2-643-401-01	RETAINER (A), SHAFT	
409	2-640-632-01	SHAFT, GUIDE	
410	＊X-2641-535-2	CHASSIS ASSY, SUB	
411	2-643-413-02	GEAR (A), LOCK	
412	2-643-405-01	WHEEL, WORM	
413	2-641-599-02	GEAR (C), LOCK	
414	2-641-595-02	SPRING, TENSION	
415	2-643-420-01	SPRING	
416	2-643-412-02	NUT, FEED	
417	3-321-813-01	WASHER, COTTER POLYETHYLENE	
418	＊2-641-583-02	LEVER (C), LOCK	
419	2-643-406-02	LEVER, SELECTION	
420	2-643-410-01	GEAR (E)	

Ref. No.	Part No.	Description	Remark
421	2-643-409-01	GEAR (D)	
422	2-643-408-02	RETAINER, THRUST	
423	A-4910-184-B	SCREW ASSY, FEED	
424	2-643-404-01	SPRING	
425	2-640-650-01	STOPPER, RING	
426	2-643-418-01	RING, CENTER	
427	2-640-617-02	SPRING, COMPRESSION	
428	X-2641-541-1	TURNTABLE ASSY	
436	2-643-423-01	SCREW, SP	
926	⚠.8-848-124-11	DEVICE, OPTICAL KSS-168ARP	
M901	A-4910-183-A	MOTOR ASSY, SL (SLED)	
M902	1-541-560-11	MOTOR, DC (SPINDLE)	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

AUDIO **MAIN**

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- –XX, –X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description			Remark
*	1-638-115-11	AUDIO BOARD			
		**********			
		< CONNECTOR >			
CNJ105	1-565-094-11	SOCKET, CONNECTOR 6P			
**********					
*	A-3261-125-A	MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C102	1-162-638-11	CERAMIC CHIP	1uF		16V
C103	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C104	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C105	1-126-096-11	ELECT	10uF	20%	35V
C106	1-124-967-11	ELECT	10uF	20%	10V
C107	1-124-967-11	ELECT	10uF	20%	10V
C108	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C109	1-126-163-11	ELECT	4.7uF	20%	50V
C201	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C202	1-162-638-11	CERAMIC CHIP	1uF		16V
C203	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C204	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C205	1-126-096-11	ELECT	10uF	20%	35V
C206	1-124-967-11	ELECT	10uF	20%	10V
C207	1-124-967-11	ELECT	10uF	20%	10V
C208	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C209	1-126-163-11	ELECT	4.7uF	20%	50V
C301	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C302	1-162-568-11	CERAMIC CHIP	0.33uF	10%	16V
C303	1-162-568-11	CERAMIC CHIP	0.33uF	10%	16V
C304	1-125-513-11	CAP, DOUBLE LAYERS	0.047F		

Ref. No.	Part No.	Description			Remark
C305	1-128-283-11	ELECT	100uF	20%	6.3V
C306	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C307	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C308	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C309	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C310	1-124-009-11	ELECT	47uF	20%	25V
C311	1-126-163-11	ELECT	4.7uF	20%	50V
C312	1-162-638-11	CERAMIC CHIP	1uF		16V
C313	1-128-300-11	ELECT	330uF	20%	16V
C314	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C315	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C316	1-126-233-11	ELECT	22uF	20%	50V
C317	1-128-283-11	ELECT	100uF	20%	6.3V
C318	1-128-283-11	ELECT	100uF	20%	6.3V
C319	1-126-233-11	ELECT	22uF	20%	50V
C320	1-128-300-11	ELECT	330uF	20%	16V
C321	1-162-638-11	CERAMIC CHIP	1uF		16V
C322	1-162-638-11	CERAMIC CHIP	1uF		16V
C323	1-162-638-11	CERAMIC CHIP	1uF		16V
C324	1-162-638-11	CERAMIC CHIP	1uF		16V
C325	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C326	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C327	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C328	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C329	1-162-638-11	CERAMIC CHIP	1uF		16V
C401	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C403	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C404	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CNJ101 *	1-506-988-11	PIN, CONNECTOR (PC BOARD)	6P		
CNJ102 *	1-506-989-11	PIN, CONNECTOR (PC BOARD)	7P		
CNJ103	1-565-954-11	SOCKET, CONNECTOR	12P		
CNJ104	1-569-533-11	SOCKET, CONNECTOR	20P		

MAIN

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D301	8-719-940-28	DIODE DSD010	
D302	8-719-105-82	DIODE RD5.1M-B2	
D303	8-719-105-92	DIODE RD5.6M-B3	
D304	8-719-940-28	DIODE DSD010	
D305	8-719-105-82	DIODE RD5.1M-B2	
D306	8-719-106-89	DIODE RD15M-B2	
D307	8-719-940-28	DIODE DSD010	
D308	8-719-940-28	DIODE DSD010	
D309	8-719-940-28	DIODE DSD010	
D310	8-719-940-28	DIODE DSD010	
D311	8-719-940-28	DIODE DSD010	
D312	8-719-018-31	DIODE RD43M-B	
D313	8-719-987-56	DIODE SB01-15CP	
D314	8-719-938-78	DIODE SB10-05PCP	
D315	8-719-107-13	DIODE RD18M-B1	
D316	8-719-107-44	DIODE RD24M-B3	
D317	8-719-987-56	DIODE SB01-15CP	
		< IC >	
IC101	8-759-109-70	IC uPC4560G2	
IC201	8-759-109-70	IC uPC4560G2	
IC301	8-759-039-66	IC uPD75512GF-095-3B9	
IC302	8-759-940-45	IC S-8054HN-CB	
IC303	8-759-940-45	IC S-8054HN-CB	
IC304	8-759-995-27	IC MB3776APF	
IC401	8-759-999-94	IC CXD8155Q	
IC402	8-759-981-12	IC MSL912RS	
IC403	8-759-981-12	IC MSL912RS	
		< COIL >	
L301	1-408-326-00	COIL, FERRITE	
L302	1-460-032-11	COIL, CHOKE 100uH	
L303	1-460-032-11	COIL, CHOKE 100uH	
		< TRANSISTOR >	
Q301	8-729-807-52	TRANSISTOR 2SD1623-T	
Q302	8-729-807-35	TRANSISTOR 2SB1123-T	
Q303	8-729-900-53	TRANSISTOR DTC114EK	
Q304	8-729-900-53	TRANSISTOR DTC114EK	
Q305	8-729-920-41	TRANSISTOR FMC3	
Q306	8-729-901-04	TRANSISTOR DTA114EK	
Q307	8-729-010-92	TRANSISTOR 2SB1449R	
Q308	8-729-271-23	TRANSISTOR 2SC2712	
Q309	8-729-271-23	TRANSISTOR 2SC2712	
Q310	8-729-807-35	TRANSISTOR 2SB1123-T	
Q311	8-729-271-23	TRANSISTOR 2SC2712	
Q312	8-729-271-23	TRANSISTOR 2SC2712	
Q313	8-729-820-69	TRANSISTOR 2SD1802FA	
Q314	8-729-807-52	TRANSISTOR 2SD1623-T	
Q315	8-729-900-53	TRANSISTOR DTC114EK	
Q316	8-729-900-53	TRANSISTOR DTC114EK	
Q317	8-729-807-35	TRANSISTOR 2SB1123-T	
Q318	8-729-900-53	TRANSISTOR DTC114EK	
Q401	8-729-920-41	TRANSISTOR FMC3	
Q402	8-729-920-41	TRANSISTOR FMC3	
Q403	8-729-920-41	TRANSISTOR FMC3	
Q404	8-729-920-41	TRANSISTOR FMC3	
		< RESISTOR >	
R101	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R103	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R104	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R105	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R106	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R107	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R108	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R109	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R110	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R111	1-216-009-00	METAL CHIP 22 5% 1/10W	
R112	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R113	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R114	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R201	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R203	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R204	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R205	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R206	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R207	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R208	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R209	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R210	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R211	1-216-009-00	METAL CHIP 22 5% 1/10W	
R212	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R213	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R214	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R301	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R302	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R303	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R304	1-216-009-00	METAL CHIP 22 5% 1/10W	
R305	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R312	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R313	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R314	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R315	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R316	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R317	1-216-081-00	METAL CHIP 22K 5% 1/10W	

MAIN POWER MD CONNECTOR

Ref. No.	Part No.	Description			Remark
R318	1-216-073-00	METAL CHIP	10K	5%	1/10W
R319	1-216-049-00	METAL CHIP	1K	5%	1/10W
R320	1-216-089-00	METAL CHIP	47K	5%	1/10W
R321	1-216-081-00	METAL CHIP	22K	5%	1/10W
R322	1-216-049-00	METAL CHIP	1K	5%	1/10W
R323	1-216-077-00	METAL CHIP	15K	5%	1/10W
R324	1-216-033-00	METAL CHIP	220	5%	1/10W
R325	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R326	1-216-089-00	METAL CHIP	47K	5%	1/10W
R327	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R328	1-216-073-00	METAL CHIP	10K	5%	1/10W
R329	1-216-097-00	METAL CHIP	100K	5%	1/10W
R330	1-216-093-00	METAL CHIP	68K	5%	1/10W
R331	1-216-073-00	METAL CHIP	10K	5%	1/10W
R332	1-216-009-00	METAL CHIP	22	5%	1/10W
R333	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R334	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R335	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R336	1-216-037-00	METAL CHIP	330	5%	1/10W
R337	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R338	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R339	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R340	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R341	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R342	1-216-089-00	METAL CHIP	47K	5%	1/10W
R343	1-216-054-00	METAL GLAZE	1.6K	5%	1/10W
R344	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R345	1-216-339-11	METAL GLAZE	18K	1%	1/10W
R346	1-216-327-11	METAL GLAZE	2K	1%	1/10W
R347	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R348	1-216-077-00	METAL CHIP	15K	5%	1/10W
R349	1-216-077-00	METAL CHIP	15K	5%	1/10W
R350	1-216-089-00	METAL CHIP	47K	5%	1/10W
R351	1-216-073-00	METAL CHIP	10K	5%	1/10W
R352	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R353	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R354	1-216-073-00	METAL CHIP	10K	5%	1/10W
R355	1-216-077-00	METAL CHIP	15K	5%	1/10W
R356	1-216-089-00	METAL CHIP	47K	5%	1/10W
R357	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R401	1-216-121-00	METAL CHIP	1M	5%	1/10W
R402	1-216-073-00	METAL CHIP	10K	5%	1/10W
R403	1-216-073-00	METAL CHIP	10K	5%	1/10W
R404	1-216-073-00	METAL CHIP	10K	5%	1/10W
R405	1-216-073-00	METAL CHIP	10K	5%	1/10W
R406	1-216-073-00	METAL CHIP	10K	5%	1/10W
R407	1-216-073-00	METAL CHIP	10K	5%	1/10W
R408	1-216-073-00	METAL CHIP	10K	5%	1/10W
R409	1-216-073-00	METAL CHIP	10K	5%	1/10W
R410	1-216-073-00	METAL CHIP	10K	5%	1/10W
R411	1-216-073-00	METAL CHIP	10K	5%	1/10W
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W
R413	1-216-073-00	METAL CHIP	10K	5%	1/10W
R414	1-216-073-00	METAL CHIP	10K	5%	1/10W
R415	1-216-073-00	METAL CHIP	10K	5%	1/10W
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W
R417	1-216-073-00	METAL CHIP	10K	5%	1/10W
R418	1-216-073-00	METAL CHIP	10K	5%	1/10W
R419	1-216-073-00	METAL CHIP	10K	5%	1/10W
R420	1-216-073-00	METAL CHIP	10K	5%	1/10W
R421	1-216-073-00	METAL CHIP	10K	5%	1/10W
R422	1-216-019-00	METAL CHIP	56	5%	1/10W
R423	1-216-019-00	METAL CHIP	56	5%	1/10W

< RELAY >

RY301	1-515-614-11	RELAY
RY302	1-515-614-11	RELAY

< TRANSFORMER >

T301	1-450-020-11	TRANSFORMER, DC-DC CONVERTER

< VARISTOR >

VDR301	1-807-601-11	VARISTOR, CERAMIC

< CRYSTAL >

X301	1-577-273-11	OSCILLATOR, CERAMIC 4.19MHz

****

* 1-638-116-11 POWER BOARD

****

< CONNECTOR >

CNJ106	1-569-522-11	PIN, CONNECTOR

****

* 1-638-111-11 MD CONNECTOR BOARD

****

1-629-582-11 TRANSLATION FLEXIBLE BOARD

< CAPACITOR >

C602	1-126-316-51	ELECT	470uF	20%	16V
C701	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C702	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C703	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C704	1-164-337-11	CERAMIC CHIP	2.2uF		16V

MD CONNECTOR | MD LED | MD MAIN

Ref. No.	Part No.	Description			Remark
C705	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C706	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C707	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C708	1-164-337-11	CERAMIC CHIP	2.2uF		16V
		< CONNECTOR >			
CNP601	* 1-566-012-11	PIN, CONNECTOR (PC BOARD) 15P			
**********					
	* 1-638-113-11	MD LED BOARD			
		**********			
		< DIODE >			
D631	8-719-404-27	DIODE	LN1261C		
D632	8-719-404-27	DIODE	LN1261C		
D633	8-719-404-27	DIODE	LN1261C		
		< RESISTOR >			
R631	1-216-184-00	METAL GLAZE	270	5%	1/8W
**********					
	* A-3273-323-A	MD MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-128-309-11	ELECT	4.7uF	20%	6.3V
C102	1-128-309-11	ELECT	4.7uF	20%	6.3V
C103	1-164-471-11	CERAMIC CHIP	680PF	5%	50V
C104	1-164-471-11	CERAMIC CHIP	680PF	5%	50V
C106	1-162-955-11	CERAMIC CHIP	150PF	5%	50V
C107	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C201	1-128-309-11	ELECT	4.7uF	20%	6.3V
C202	1-128-309-11	ELECT	4.7uF	20%	6.3V
C203	1-164-471-11	CERAMIC CHIP	680PF	5%	50V
C204	1-164-471-11	CERAMIC CHIP	680PF	5%	50V
C206	1-162-955-11	CERAMIC CHIP	150PF	5%	50V
C207	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C301	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C302	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C303	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C304	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C305	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C306	1-164-346-11	CERAMIC CHIP	1uF		16V
C307	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C308	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C309	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C310	1-164-346-11	CERAMIC CHIP	1uF		16V
C311	1-164-346-11	CERAMIC CHIP	1uF		16V

Ref. No.	Part No.	Description			Remark
C351	1-135-161-21	TANTALUM CHIP	22uF	10%	10V
C356	1-162-568-11	CERAMIC CHIP	0.33uF	10%	16V
C401	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C406	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C407	1-162-638-11	CERAMIC CHIP	1uF		16V
C408	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C409	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C410	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C411	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C414	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C415	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C416	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C417	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C418	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C420	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C421	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C422	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C423	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C501	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C502	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C503	1-135-161-21	TANTALUM CHIP	22uF	10%	10V
C504	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C505	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C506	1-163-833-00	CERAMIC CHIP	0.068uF		25V
C507	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C508	1-162-638-11	CERAMIC CHIP	1uF		16V
C509	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C512	1-163-833-00	CERAMIC CHIP	0.068uF		25V
C513	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C514	1-162-638-11	CERAMIC CHIP	1uF		16V
C515	1-164-471-11	CERAMIC CHIP	680PF	5%	50V
C517	1-162-568-11	CERAMIC CHIP	0.33uF	10%	16V
C519	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C520	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C521	1-162-568-11	CERAMIC CHIP	0.33uF	10%	16V
C522	1-162-958-11	CERAMIC CHIP	270PF	5%	50V
C523	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C524	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C525	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C526	1-162-568-11	CERAMIC CHIP	0.33uF	10%	16V
C527	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C528	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C529	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C530	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C531	1-164-471-11	CERAMIC CHIP	680PF	5%	50V
C533	1-162-638-11	CERAMIC CHIP	1uF		16V

Ref. No.	Part No.	Description			Remark
C534	1-162-916-11	CERAMIC CHIP	12PF	5% 50V	
C535	1-162-916-11	CERAMIC CHIP	12PF	5% 50V	
C536	1-163-989-11	CERAMIC CHIP	0.033uF	10% 25V	
C537	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V	
C538	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C541	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C542	1-162-638-11	CERAMIC CHIP	1uF	16V	
C543	1-162-638-11	CERAMIC CHIP	1uF	16V	
C550	1-135-155-21	TANTALUM CHIP	4.7uF	10% 16V	
C561	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V	
C598	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C610	1-162-638-11	CERAMIC CHIP	1uF	16V	
C651	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C652	1-162-957-11	CERAMIC CHIP	220PF	5% 50V	
C672	1-162-921-11	CERAMIC CHIP	33PF	5% 50V	
C673	1-162-921-11	CERAMIC CHIP	33PF	5% 50V	
		< CONNECTOR >			
CNJ1	1-568-142-11	HOUSING, CONNECTOR 13P			
CNJ2	* 1-566-188-11	PIN, CONNECTOR (PC BOARD) 9P			
CNJ3	1-568-141-11	HOUSING, CONNECTOR 5P			
CNJ4	1-566-526-11	CONNECTOR, FPC (ZIF) 10P			
CNJ5	1-566-532-11	CONNECTOR, FPC (ZIF) 16P			
		< DIODE >			
D301	8-719-941-86	DIODE	DAN202U		
D302	8-719-105-82	DIODE	RD5.1M-B2		
D404	8-719-941-86	DIODE	DAN202U		
D405	8-719-981-59	DIODE	FC805		
D406	8-719-981-59	DIODE	FC805		
D409	8-719-941-86	DIODE	DAN202U		
D410	8-719-941-86	DIODE	DAN202U		
D501	8-719-941-86	DIODE	DAN202U		
D502	8-719-105-82	DIODE	RD5.1M-B2		
D503	8-719-105-82	DIODE	RD5.1M-B2		
D504	8-719-105-82	DIODE	RD5.1M-B2		
D505	8-719-106-31	DIODE	RD8.2M-B1		
D506	8-719-105-82	DIODE	RD5.1M-B2		
D601	8-719-941-86	DIODE	DAN202U		
		< IC >			
IC101	8-759-604-64	IC	M5203FP		
IC201	8-759-604-64	IC	M5203FP		
IC301	8-759-999-57	IC	PCM1700U-K		
IC302	8-759-100-94	IC	uPC358G2		
IC303	8-759-243-19	IC	TC7SU04F		
IC401	8-759-924-58	IC	CXA1083M		
IC403	8-759-505-70	IC	L2726		
IC404	8-759-505-70	IC	L2726		

Ref. No.	Part No.	Description			Remark
IC405	8-759-998-10	IC	MB3854		
IC501	8-752-033-14	IC	CXA1081Q		
IC502	8-752-032-32	IC	CXA1182Q-Z		
IC503	8-752-337-26	IC	CXD2500AQ		
IC504	8-752-334-07	IC	CXD2551M		
IC601	8-752-814-68	IC	CXP50116-235Q		
		< COIL >			
L501	1-410-204-31	INDUCTOR CHIP	10uH		
		< TRANSISTOR >			
Q301	8-729-907-00	TRANSISTOR	DTC114EU		
Q302	8-729-807-35	TRANSISTOR	2SB1123-T		
Q303	8-729-905-35	TRANSISTOR	2SC4081		
Q304	8-729-905-35	TRANSISTOR	2SC4081		
Q305	8-729-907-00	TRANSISTOR	DTC114EU		
Q351	8-729-820-47	TRANSISTOR	2SB1202FA		
Q352	8-729-807-35	TRANSISTOR	2SB1123-T		
Q353	8-729-907-00	TRANSISTOR	DTC114EU		
Q354	8-729-903-10	TRANSISTOR	FMW1		
Q409	8-729-922-94	TRANSISTOR	DTC143TU		
Q502	8-729-905-35	TRANSISTOR	2SC4081		
Q503	8-729-905-23	TRANSISTOR	2SA1576		
Q504	8-729-807-52	TRANSISTOR	2SD1623-T		
Q510	8-729-902-93	TRANSISTOR	FMG4		
Q511	8-729-902-93	TRANSISTOR	FMG4		
Q512	8-729-902-93	TRANSISTOR	FMG4		
Q513	8-729-902-93	TRANSISTOR	FMG4		
Q514	8-729-902-93	TRANSISTOR	FMG4		
Q515	8-729-922-94	TRANSISTOR	DTC143TU		
Q516	8-729-922-94	TRANSISTOR	DTC143TU		
Q517	8-729-902-93	TRANSISTOR	FMG4		
Q518	8-729-902-90	TRANSISTOR	FMA4		
		< RESISTOR >			
R101	1-218-293-11	METAL GLAZE	24K	5% 1/16W	
R102	1-216-834-11	METAL CHIP	12K	5% 1/16W	
R103	1-218-330-11	METAL GLAZE	11K	5% 1/16W	
R104	1-216-836-11	METAL CHIP	18K	5% 1/16W	
R105	1-216-817-11	METAL CHIP	470	5% 1/16W	
R107	1-216-833-11	METAL CHIP	10K	5% 1/16W	
R108	1-216-841-11	METAL CHIP	47K	5% 1/16W	
R201	1-218-293-11	METAL GLAZE	24K	5% 1/16W	
R202	1-216-834-11	METAL CHIP	12K	5% 1/16W	
R203	1-218-330-11	METAL GLAZE	11K	5% 1/16W	
R204	1-216-836-11	METAL CHIP	18K	5% 1/16W	
R205	1-216-817-11	METAL CHIP	470	5% 1/16W	
R207	1-216-833-11	METAL CHIP	10K	5% 1/16W	

MD MAIN

Ref. No.	Part No.	Description			Remark
R208	1-216-841-11	METAL CHIP	47K	5%	1/16W
R301	1-216-813-11	METAL CHIP	220	5%	1/16W
R302	1-216-841-11	METAL CHIP	47K	5%	1/16W
R303	1-216-821-11	METAL CHIP	1K	5%	1/16W
R304	1-216-797-11	METAL CHIP	10	5%	1/16W
R305	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R306	1-216-841-11	METAL CHIP	47K	5%	1/16W
R307	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R308	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R309	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R310	1-216-849-11	METAL CHIP	220K	5%	1/16W
R311	1-216-846-11	METAL CHIP	120K	5%	1/16W
R350	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R351	1-216-824-11	METAL CHIP	1.8K	5%	1/16W
R352	1-216-817-11	METAL CHIP	470	5%	1/16W
R353	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R354	1-216-841-11	METAL CHIP	47K	5%	1/16W
R355	1-216-833-11	METAL CHIP	10K	5%	1/16W
R356	1-216-841-11	METAL CHIP	47K	5%	1/16W
R357	1-216-821-11	METAL CHIP	1K	5%	1/16W
R401	1-216-821-11	METAL CHIP	1K	5%	1/16W
R402	1-216-821-11	METAL CHIP	1K	5%	1/16W
R403	1-216-834-11	METAL CHIP	12K	5%	1/16W
R404	1-216-841-11	METAL CHIP	47K	5%	1/16W
R405	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R406	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R408	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R409	1-216-838-11	METAL CHIP	27K	5%	1/16W
R410	1-216-838-11	METAL CHIP	27K	5%	1/16W
R411	1-216-838-11	METAL CHIP	27K	5%	1/16W
R412	1-216-838-11	METAL CHIP	27K	5%	1/16W
R418	1-216-797-11	METAL CHIP	10	5%	1/16W
R419	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R420	1-216-833-11	METAL CHIP	10K	5%	1/16W
R421	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R422	1-216-797-11	METAL CHIP	10	5%	1/16W
R423	1-216-833-11	METAL CHIP	10K	5%	1/16W
R424	1-216-797-11	METAL CHIP	10	5%	1/16W
R425	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R426	1-216-833-11	METAL CHIP	10K	5%	1/16W
R427	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R428	1-216-797-11	METAL CHIP	10	5%	1/16W
R429	1-216-833-11	METAL CHIP	10K	5%	1/16W
R434	1-216-797-11	METAL CHIP	10	5%	1/16W
R500	1-216-839-11	METAL CHIP	33K	5%	1/16W
R501	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R502	1-216-837-11	METAL CHIP	22K	5%	1/16W
R503	1-216-835-11	METAL CHIP	15K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R504	1-216-821-11	METAL CHIP	1K	5%	1/16W
R505	1-216-841-11	METAL CHIP	47K	5%	1/16W
R506	1-216-835-11	METAL CHIP	15K	5%	1/16W
R507	1-216-836-11	METAL CHIP	18K	5%	1/16W
R508	1-216-813-11	METAL CHIP	220	5%	1/16W
R509	1-216-001-00	METAL CHIP	10	5%	1/10W
R510	1-216-857-11	METAL CHIP	1M	5%	1/16W
R511	1-216-845-11	METAL CHIP	100K	5%	1/16W
R512	1-216-845-11	METAL CHIP	100K	5%	1/16W
R513	1-216-845-11	METAL CHIP	100K	5%	1/16W
R514	1-216-845-11	METAL CHIP	100K	5%	1/16W
R515	1-216-838-11	METAL CHIP	27K	5%	1/16W
R516	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R517	1-218-273-11	METAL GLAZE	510K	5%	1/16W
R518	1-216-841-11	METAL CHIP	47K	5%	1/16W
R519	1-216-805-11	METAL CHIP	47	5%	1/16W
R520	1-216-848-11	METAL CHIP	180K	5%	1/16W
R523	1-216-833-11	METAL CHIP	10K	5%	1/16W
R524	1-216-837-11	METAL CHIP	22K	5%	1/16W
R525	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R526	1-216-849-11	METAL CHIP	220K	5%	1/16W
R527	1-216-833-11	METAL CHIP	10K	5%	1/16W
R530	1-236-424-11	NETWORK, RES	10K		
R531	1-216-833-11	METAL CHIP	10K	5%	1/16W
R533	1-216-797-11	METAL CHIP	10	5%	1/16W
R535	1-216-833-11	METAL CHIP	10K	5%	1/16W
R536	1-218-286-11	METAL GLAZE	91	5%	1/16W
R537	1-216-841-11	METAL CHIP	47K	5%	1/16W
R538	1-216-838-11	METAL CHIP	27K	5%	1/16W
R541	1-216-833-11	METAL CHIP	10K	5%	1/16W
R542	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R543	1-236-420-11	NETWORK, RES	4.7K		
R544	1-236-420-11	NETWORK, RES	4.7K		
R547	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R550	1-216-850-11	METAL CHIP	270K	5%	1/16W
R551	1-216-843-11	METAL CHIP	68K	5%	1/16W
R552	1-218-332-11	METAL GLAZE	130K	5%	1/16W
R553	1-216-837-11	METAL CHIP	22K	5%	1/16W
R554	1-216-846-11	METAL CHIP	120K	5%	1/16W
R555	1-216-849-11	METAL CHIP	220K	5%	1/16W
R556	1-216-853-11	METAL CHIP	470K	5%	1/16W
R558	1-216-833-11	METAL CHIP	10K	5%	1/16W
R559	1-216-994-11	METAL GLAZE	13K	5%	1/16W
R560	1-216-839-11	METAL CHIP	33K	5%	1/16W
R561	1-216-815-11	METAL CHIP	330	5%	1/16W
R562	1-216-837-11	METAL CHIP	22K	5%	1/16W
R563	1-216-835-11	METAL CHIP	15K	5%	1/16W
R564	1-216-839-11	METAL CHIP	33K	5%	1/16W
R566	1-216-833-11	METAL CHIP	10K	5%	1/16W

MD MAIN | MD SENSOR

Ref. No.	Part No.	Description			Remark
R567	1-216-851-11	METAL CHIP	330K	5%	1/16W
R568	1-216-833-11	METAL CHIP	10K	5%	1/16W
R570	1-216-845-11	METAL CHIP	100K	5%	1/16W
R571	1-216-837-11	METAL CHIP	22K	5%	1/16W
R577	1-216-837-11	METAL CHIP	22K	5%	1/16W
R578	1-216-845-11	METAL CHIP	100K	5%	1/16W
R579	1-216-837-11	METAL CHIP	22K	5%	1/16W
R583	1-216-843-11	METAL CHIP	68K	5%	1/16W
R584	1-216-840-11	METAL CHIP	39K	5%	1/16W
R585	1-216-837-11	METAL CHIP	22K	5%	1/16W
R586	1-216-845-11	METAL CHIP	100K	5%	1/16W
R587	1-216-845-11	METAL CHIP	100K	5%	1/16W
R589	1-216-833-11	METAL CHIP	10K	5%	1/16W
R590	1-216-833-11	METAL CHIP	10K	5%	1/16W
R591	1-216-833-11	METAL CHIP	10K	5%	1/16W
R597	1-216-797-11	METAL CHIP	10	5%	1/16W
R598	1-216-833-11	METAL CHIP	10K	5%	1/16W
R601	1-216-857-11	METAL CHIP	1M	5%	1/16W
R602	1-216-841-11	METAL CHIP	47K	5%	1/16W
R661	1-236-436-11	NETWORK, RES	100K		
R662	1-236-436-11	NETWORK, RES	100K		
R663	1-236-428-11	NETWORK, RES	22K		
R668	1-236-424-11	NETWORK, RES	10K		
R669	1-236-424-11	NETWORK, RES	10K		
R670	1-216-833-11	METAL CHIP	10K	5%	1/16W
R671	1-236-424-11	NETWORK, RES	10K		
R672	1-216-833-11	METAL CHIP	10K	5%	1/16W
		< THERMISTOR >			
TH501	1-808-656-11	THERMISTOR			
TH502	1-808-656-11	THERMISTOR			
		< VIBRATOR >			
X501	1-577-274-11	VIBRATOR, CRYSTAL			
X601	1-577-273-11	OSCILLATOR, CERAMIC 4.19MHz			

****

* 1-638-112-11 MD SENSOR BOARD

****

1-629-581-11 SENSOR FLEXIBLE BOARD

< TRANSISTOR >

Q621	8-729-402-08	TRANSISTOR	PN147-LF-R
Q622	8-729-402-08	TRANSISTOR	PN147-LF-R
Q623	8-729-402-08	TRANSISTOR	PN147-LF-R

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
SW621	1-571-754-11	SWITCH, PUSH (1 KEY)	
SW622	1-571-754-11	SWITCH, PUSH (1 KEY)	

****

MISCELLANEOUS

****

1	*	1-466-492-11	KEYBOARD UNIT
926	⚠	8-848-124-11	DEVICE, OPTICAL KSS-168ARP
SW631		1-554-938-11	SWITCH, LEAF (LIMIT SWITCH)
SW632		1-554-938-11	SWITCH, LEAF (GEAR SWITCH)
M901		A-4910-183-A	MOTOR, ASSY, SL (SLED)
M902		X-3165-836-1	MOTOR, DC (SPINDLE)
M903		A-3249-535-A	GEAR (A) ASSY (LOADING)
PM901		1-454-461-11	SOLENOID, PLUNGER

****

ACCESSORIES & PACKING MATERIALS

****

	3-336-617-01	BAG, PROTECTION
*	3-366-113-01	CUSHION (UPPER)
*	3-366-114-01	CUSHION (LOWER)
*	3-366-115-02	CARTON, 4 SETS
*	3-366-116-01	PROTECTOR

****

HARDWARE LIST

****

#1	7-621-559-30	SCREW +K 2.6X5
#2	7-621-770-87	SCREW +BVTT 2.6X5 (S)
#3	7-685-133-19	SCREW +P 2.6X6 TYPE2 SLIT
#4	7-685-861-01	SCREW +BVTT 2.6X5 CZN-N
#5	7-621-772-08	SCREW +B 2X3
#6	7-627-553-28	SCREW, PRECISION +P 2X2.5
#7	7-624-104-04	STOP RING 2.0, TYPE -E
#8	7-627-553-37	SCREW, PRECISION +P 2X3
#9	7-627-552-18	SCREW, PRECISION +P 1.7X1.6
#10	7-627-850-57	SCREW, PRECISION +P 1.4X3.5

****

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-956-639-11

Sony Corporation
Mobile Electronics Group

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F2DF-19B160

SONY®
SERVICE MANUAL

US Model

Version: -AB

SUPPLEMENT-1

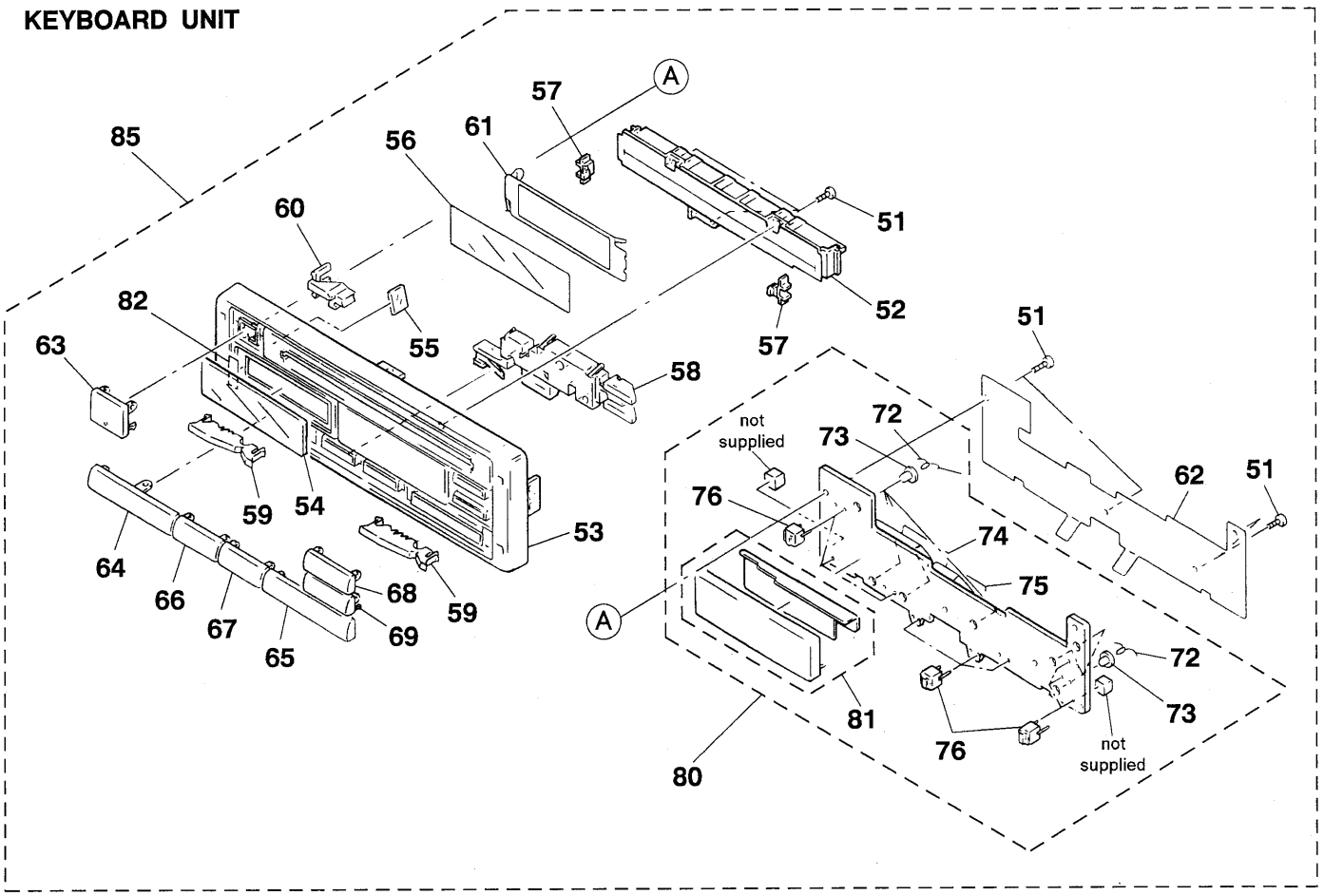
File this supplement with the service manual.

Subject : Keyboard Unit

NOTE:

- -XX,-X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

KEYBOARD UNIT



Ref.No.	Part No.	Description	Remark
51	9-904-012-01	SCREW, T	
52	9-901-817-01	CASE, SUB	
53	9-901-804-01	CASE	
54	9-901-818-01	FILTER	
55	9-904-016-01	FILTER	
56	9-901-805-01	FILTER	
57	9-901-819-01	GUIDE, LIGHT	
* 58	9-901-820-01	GUIDE, LIGHT	
* 59	9-901-821-01	GUIDE, LIGHT	
* 60	9-901-822-01	GUIDE, LIGHT	
* 61	9-904-021-01	PLATE, SHEELD	
* 62	9-901-806-01	INSULATOR	
63	9-901-807-01	BUTTON (EJECT)	
64	9-901-808-01	BUTTON (AMS)	
65	9-901-809-01	BUTTON (REV/FF)	
66	9-901-810-01	BUTTON (SCAN)	
67	9-901-811-01	BUTTON (PLAY/STOP)	
68	9-901-812-01	BUTTON (COMPRESS)	
69	9-901-813-01	BUTTON (SHUFFLE)	

Ref.No.	Part No.	Description	Remark
72	9-901-824-01	LAMP (7V/75mA)	
73	9-901-825-01	CAP, LAMP	
74	9-901-814-01	CABLE, FLEXIBLE (20P)	
75	9-901-815-01	CABLE, FLEXIBLE (12P)	
76	9-901-826-01	SWITCH, TACT	
* 80	9-905-583-01	KEY BOARD, COMPLETE	
81	9-904-828-01	DISPLAY ASSY	
82	9-905-584-01	SHEET	
* 85	1-466-492-11	KEYBOARD UNIT	

【ELECTRICAL PARTS】

< RESISTOR >

	9-905-582-01	METAL CHIP	150

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Sony Corporation
Mobile Electronics Group

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F2DF-19B160

SONY®
SERVICE MANUAL

US Model

Version: -AC

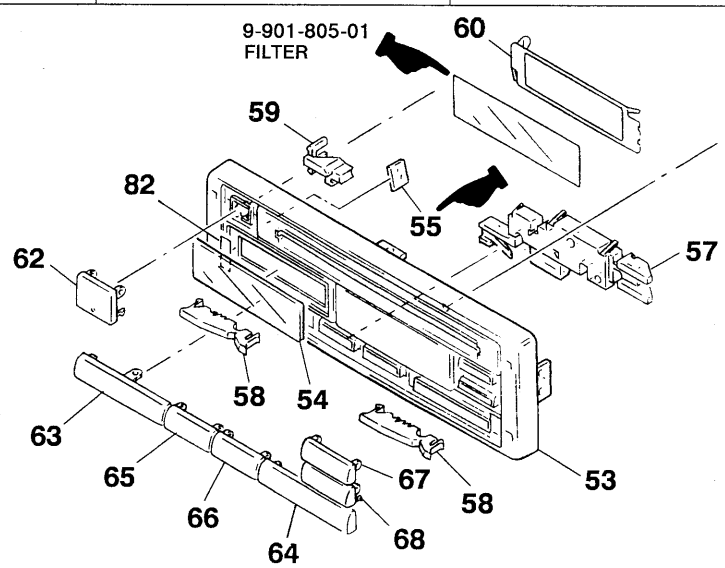
SUPPLEMENT-2

File this supplement with the service manual.

Subject : Version AC

Model **F2DF-19B160** Version AC is almost same as **F4OF-19B160** Version AB.
As only the difference from **F4OF-19B160** Version AB is described in this manual, please refer **F4OF-19B160** Version AB service manual for the other sections.

DIFFERENCE PARTS

Page on F4OF-19B160 SERVICE MANUAL	Ref. No.	Part No.	Description
37	54	9-901-818-01	FILTER
	55	9-904-016-01	FILTER
	62	9-901-807-01	BUTTON (EJECT)
	63	9-901-808-01	BUTTON (AMS)
	64	9-901-809-01	BUTTON (REV/FF)
	65	9-901-810-01	BUTTON (SCAN)
	66	9-901-811-01	BUTTON (PLAY/STOP)
	67	9-901-812-01	BUTTON (COMPRESS)
	68	9-901-813-01	BUTTON (SHUFFLE)
	73	9-901-825-01	CAP, LAMP
	79	* 9-905-739-01	KEY BOARD, COMPLETE
	85	* 1-466-824-31	KEYBOARD UNIT
	addition	9-901-805-01	FILTER
			
47		* 3-389-646-01	CARTON, 4 SETS

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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